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## POLIOMYELITIS (INFANTILE PARALYSIS).

### THE DIFFICULTIES OF ASCERTAINING ITS ACTUAL PREVALENCE AND DISTRIBUTION.

The factors which operate against the obtaining of complete records of many diseases are illustrated by the following incident: Asst. Surg. Baughman was sent to investigate an alleged case of typhoid fever which had occurred about September 1, 1916, at the Port San Luis Obispo lighthouse station, on Point San Luis, Cal. The case had been in a girl aged 15 years and from the statements of the family and of the physician who had been in attendance it was concluded that the case was probably one of poliomyelitis and not of typhoid fever. If it was poliomyelitis, the question was, What was the source of infection? As the girl had been in the habit of spending two or three days a week with her relatives in the neighboring village of Avila a brief investigation was made at that place. Inquiry as to whether there had been infantile paralysis in the village or vicinity was met by the statement that there had been none. When the question was asked, however, if there had been any children ill recently some one stated that a baby had been ill with some sort of fever, and that after the fever left the baby was unable to walk or use its legs. On visiting the home of this child information was obtained of a similar case in a neighboring family. The mother of the second child knew of a third one similarly affected, while in the village accounts of three other cases were obtained. It was also learned that a family with several small children had come to the village in the month of July and that one of the children had died while en route from somewhere in the east. This family was found and it was ascertained that on July 5 they had left New York City, where they had lived in a neighborhood in which there had been cases of poliomyelitis. Two or three days after leaving New York one of the children, aged 4 years, became suddenly ill with high fever and paralysis. The child did not recover. After its death the rest of the family proceeded to Avila. It was after the arrival of this family that the cases developed in Avila.

## PREVALENCE OF SYPHILIS.

### AS INDICATED BY THE ROUTINE USE OF THE WASSERMANN REACTION.

By W. M. M. BRYAN, Passed Assistant Surgeon, and JAS. F. HOOKER, Acting Assistant Surgeon, United States Public Health Service.

The Wassermann reaction is steadily coming into more common use, and its value as a routine procedure is being more fully appreciated. A number of reports of such routine examination have been made, notably one by Dr. Albert A. Homer (Boston Medical and Surgical Journal, Feb. 10, 1916) on 500 cases at the Massachusetts General Hospital, in which he found that 17.4 per cent of the patients tested gave a positive reaction.

For the purpose of comparing such findings and also to determine the incidence of syphilis in a certain industry, it was decided to obtain a similar series from seamen admitted to the Boston Marine Hospital and to compare this with the records of previous years, when the Wassermann had been used only occasionally, and with other years when it had not been used at all. The higher syphilitic morbidity in our series than is usual in general hospitals is probably fully accounted for by the fact that only adult males are treated at marine hospitals.

Since February, 1916, blood has been drawn from every one admitted and the serum obtained by centrifuging sent to the Hygienic Laboratory at Washington, where the test was made. Up to October, 1916, 312 cases were thus tested, and 77, or 24.7 per cent, were positive. Readmissions and faulty specimens have been excluded from this series, and doubtful reactions have been considered negative.

Of the 77 positive cases 19 were obviously syphilitic, having either marked secondaries or other symptoms on which a definite diagnosis could have been made without the use of a Wassermann. If these 19 cases be excluded the percentage will be reduced to 18.6 in the apparently nonsyphilitic. On the other hand, it should be noted that 11 cases obviously syphilitic gave a negative reaction because of recent treatment, and had these cases been included with the 77 positive cases the total incidence would be raised to 28.2 per cent.

Beginning in 1911 the Wassermann reaction was used at the Boston Marine Hospital as an aid to diagnosis in doubtful cases, and the records show that from that date to 1916 2,863 cases were admitted and 468 Wassermans taken, of which 191 were positive, 260 negative, and 17 doubtful, and that in these years 9.1 per cent of all cases admitted were diagnosed as syphilitic.

Reports for the five years 1907-1911 show that 4.3 per cent of all cases treated in hospitals of the United States Public Health Service were diagnosed as syphilis. During this period the Wasser-

mann reaction was used seldom, if ever, so this is probably a fair average of the easily recognizable cases among patients at Marine Hospitals.

The value of the serum test in the diagnosis of syphilis is now universally admitted, and the fact that the reaction may be positive in the absence of this disease or negative in its presence does not detract from its practical value. It is also well recognized that more negative reactions occur in the presence of syphilis than positive reactions in its absence, and this is true especially in the obscure so-called parasymphilitic cases, as has been demonstrated not only by the other reactions, such as the gold chloride test, but also by the post-mortem findings.

From the above data it would seem fair to conclude:

1. That the prevalence of syphilis is much greater than is shown by ordinary hospital and medical records, and that by the routine use of the Wassermann reaction a large percentage of cases which certainly could not be diagnosed without it, will be recognized and properly treated.

2. That for the protection of the public health, to say nothing of the relief of much individual suffering, State and city laboratories where the Wassermann test can be obtained without cost should be universally established, and physicians and the public at large should be educated to its use in the same way that they have been educated to demand examination of sputum for tuberculosis.

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## THE FEEBLE-MINDED.

### THEIR PREVALENCE AND NEEDS IN THE SCHOOL POPULATION OF ARKANSAS.

By WALTER L. TREADWAY, Assistant Surgeon, United States Public Health Service.

In recognition of the fact that the care of the mental defective has become quite generally the function of the State, the Fortieth General Assembly (1915) of Arkansas passed the following concurrent resolution:

That a commission of five persons, residents of this State, shall be appointed by the Governor, to investigate the conditions and needs of the feeble-minded in the State, the said commission to be known as the Commission for the Feeble-Minded. Approved March 25, 1915.

At the request of the commission thus appointed, and for the furtherance of general investigations of mental and school hygiene, an officer of the Public Health Service was detailed to make studies of the prevalence of feeble-mindedness in Arkansas for the purpose of assisting the commission in determining the needs of the State in regard to the feeble-minded.

### Facts Pertaining to Mental Deficiency.

For many years mental disorders were looked upon with superstitious fear. The insane, therefore, were placed in prisons or other institutions, while mentally feeble children and adults were often subjected to abuse and neglect or cared for in almshouses and other places of confinement where no effort was made to render them useful to themselves or to society.

In 1800, however, an attempt was made by Itard, a physician at the National Institution for the Deaf and Dumb at Paris, to educate an idiot, "The Savage of Aveyron." Between 1800 and 1848 the care and education of the feeble-minded attracted considerable attention in France, Switzerland, Germany, and England, where schools for this class of individuals were established.

As early as 1818 the problem of the feeble-minded began to attract attention in the United States. During that year several idiots were admitted to the American Asylum for the Deaf and Dumb at Hartford, Conn., and an attempt was made to treat and educate them. In 1846 a bill for State care of the feeble-minded was introduced in the New York Legislature. It was defeated, but passed two years later. Following this a private school for the education of the feeble-minded was opened at Barre, Mass.<sup>1</sup> By 1870 seven States had made some provision for the feeble-minded. These were Massachusetts, New York, Pennsylvania, Connecticut, Ohio, Kentucky, and Illinois, in the order named.<sup>2</sup>

During the period 1870-1915, 32 States made some provision for the care of the feeble-minded, while 10 private institutions for the care and training of the underaverage child, each with 50 or more beds, were established in 9 different States.<sup>3</sup>

Mental deficiency has been defined as a lack of normal mental capacity due to defective development of the brain. While by far the greater proportion of those who are mentally defective are so because of conditions which existed at birth or because of injuries sustained by the brain during birth, it is proper also to include those

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<sup>1</sup> Institution for the Education of Idiots, Imbeciles, and Children of Retarded Development of Mind. Jan. 1, 1851, pp. 18-19. By Dr. H. B. Wilbur, Barre, Mass.

It is of interest to note the following from the first report of that institution (1851) relative to the purpose for which it was inaugurated. "It aims to nourish and encourage the growth of what may be mere germs of functions and faculties, to direct those functions and aptitudes in the natural channels of physical and mental labor, and to give to the subjects of it the greatest possible resemblance to children well endowed and properly educated. \* \* \*

"It seeks by the constant and persevering use of every variety of moral means to render those newly acquired powers and faculties subservient to an enlightened sense of relations to the moral world."

<sup>2</sup> "History of Treatment of the Feeble Minded," by Walter E. Fernald, M. D. Report of the Proceedings of the 20th National Conference of Charities and Correction.

<sup>3</sup> Public Institutions for the Feeble Minded and Epileptic in the United States, by National Committee for Mental Hygiene, New York.

in whom mental development is arrested or retarded by illness or injury during the early years of childhood.

The most widely quoted definition of feeble-mindedness is that adopted by the Royal Commission appointed by the English Government in 1904, to investigate the conditions of the feeble-minded in the British Isles and is as follows: "The feeble-minded person is one who is capable of earning a living under favorable circumstances, but is incapable, from mental defects existing from birth or from an early age, of competing on equal terms with his normal fellows or managing himself or his affairs with ordinary prudence."<sup>1</sup>

The American Association for the Study of the Feeble-minded tentatively adopted the following: "The term feeble-minded is used generically to include all degrees of mental defect due to arrested or imperfect mental development, as a result of which the person so afflicted is incapable of competing on equal terms with his normal fellows or managing himself or his affairs with ordinary prudence."

Witmer does not attempt a full definition in one or two sentences, but some idea may be gathered from the following: "The defectives are those who have so many and such severe mental defects that they are unable to overcome these defects as a result of expert training and must therefore reach adult age arrested in mental and moral development, industrially incapable of earning a modest livelihood and socially a menace oftentimes to themselves and their families and always to society, either by virtue of their own behavior or their retained capacity to reproduce their kind."

The condition of feeble-mindedness varies from the most profound degree, in which there is but a glimmer of intelligence, to that in which the defect is apparent only in the highest levels of mental activity and which is not incompatible with the ability to acquire a large store of information nor to earn a living.

Those engaged in educational work usually prefer a classification which is based upon a comparison between the actual age of the person in question and his "mental age." The average mental development of normal children at different ages has been determined largely by various psychological tests, the best known and most widely used being the Binet-Simon tests. These tests were devised empirically by determining a group of tests which a child of normal mental development for a given age would be expected to pass. They were afterwards used for the purpose of grading a group of mental defective persons in terms of "mental age" in order that they might be classified for purposes of education. These tests have since been modified and revised for the purpose of grading in terms of "mental years," the mental development of school children, inmates of prisons, reformatories, and other institutions.

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<sup>1</sup> Definition by Royal College of Physicians, London.

By this method of "mental age" classification the feeble-minded have been divided into three groups: Idiots, whose mental age is below 3 years; imbeciles, whose mental age is between 3 and 7 years; and morons, between 8 and 12 years. This classification has been adopted by the American Association for the Study of the Feeble-Minded.

In recent years there has been a tendency to include higher and higher grade cases in the feeble-minded group. In some instances this has resulted in placing persons in environments ill suited to them.

It is a well-known fact that children who are retarded and far below the average intelligence at an early period may as they grow older catch up a year or two in mental growth. The fact that a child grades below the average by formal tests is not an infallible sign that he will never develop beyond the mental attainments of a child. An analogy is found in the retarded physical development of certain children.

There is good reason for including in the feeble-minded group only those children whose mental retardation is not complicated by faulty training or physical disorders. In other words, as feeble-mindedness is incurable, to place the doubtful feeble-minded group as incurable might, in the light of present conditions, stigmatize the child and family. Many of these cases resemble the feeble-minded if the statistical results of formal tests are taken as a basis for diagnosis.

There is still another group with a low average normal intelligence, composed of individuals of poor intellectual development, but still regarded as normal—"Not tainted but dull." Mental inferiority of this type is more or less a constitutional trait that can not be regarded as feeble-mindedness.

The physical growth of the feeble-minded child is often superior to his mental development, so that when he reaches adolescence the sad combination of his childish mind and adult body brings him into conflict with laws, rules of conduct, and customs of society arranged for normal adults. Thus we often find that the feeble-minded are delinquent and criminal because they are unable to comprehend laws or control their acts. They are easily influenced to commit crime and often become the prey of the stronger. They easily acquire vicious habits and not infrequently become addicted to alcohol and drugs. Incapable of providing for themselves they soon become dependent upon charity.

The feeble-minded are often sexually immoral because they are unable to guard themselves against the advances of others or to deal with the problem of their own sexual life as the standards of the community require. Some of them become perverts and prostitutes. It has been shown by recent studies conducted by the United States

Public Health Service that 19 per cent of the inmates of an institution for the care of illegitimately pregnant girls were feeble-minded.<sup>1</sup> In almost every almshouse in this country may be found a few feeble-minded women who have given birth to one or more feeble-minded children. Not they alone, but their progeny as well are a burden upon the community.

Although the prevalence of mental deficiency is not known, a number of estimates have been made as a result of careful observations of different groups of the population. For example, it is estimated that 5 to 15 per cent of those confined in prisons, penitentiaries, jails, and workhouses are feeble-minded. Wide variations exist as to the prevalence of feeble-mindedness in the juvenile delinquent classes.

Recent studies conducted by the United States Public Health Service have shown that 9 in every 1,000 American rural school children are feeble-minded.<sup>2</sup>

Since the study of the Royal Commission of England (1904) it has been assumed that two out of each 1,000 in the general population are feeble-minded. On the basis of this estimate it is likely that 500,000 feeble-minded persons are present in the United States today.

According to the National Committee for Mental Hygiene there were in 1915, 33,474 beds especially provided by the various States for the custody and training of the feeble-minded.<sup>3</sup> The existence of such a large number of persons who are children in mental attainments but for the most part men and women in actual years constitutes a problem of great importance.

So intimately associated is the problem of mental deficiency with crime, poverty, disease, delinquency, immorality, and other social ills, that health authorities, educational authorities, and the courts are deeply interested in a satisfactory solution.

#### Scope of the Survey in Arkansas.

The relation of mental deficiency to delinquency, dependence, and immorality, is vastly more important in the years of adult life than in childhood, but the phases of the problem as they present themselves in the years of school life are more readily manageable. The school population, therefore, constitutes the larger group to which access for satisfactory investigation can be had.

It was impossible in the time allotted to visit all the schools or to examine every child of school age in the State. In order, therefore, to strike an average for the State, a number of counties were chosen

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<sup>1</sup> Not published.

<sup>2</sup> "Rural School Sanitation including Physical and Mental Status of School Children in Porter County, Indiana. Public Health Bulletin No. 77."

<sup>3</sup> Public Institutions for the Feeble Minded and Epileptic in the United States, by National Committee for Mental Hygiene, New York.

in which to conduct these studies. Certain sociological conditions, educational opportunities, and public-health considerations influenced the selection of the counties to be surveyed. Of these due consideration was given to their isolation, to the per capita wealth, to compulsory school attendance, to literacy, to the percentage of native-born population, to the presence of foreign immigration, and to a wide prevalence of or freedom from malaria and hookworm disease in endemic form. The counties and districts surveyed represented each of these conditions or its opposite.

Great harm has resulted from statements as to the prevalence of mental deficiency, which were not based upon actual observation. During the course of this survey, therefore, cases concerning which there was considerable doubt were not included in the enumeration of the feeble-minded.

Certain phases of the problem of mental deficiency stand in such close relationship to school hygiene that it was thought desirable to include also in these investigations a survey of school environment. The results of the latter studies will be set forth in a subsequent report.

#### Methods Employed.

As the object of this survey was to determine primarily the prevalence of feeble-mindedness in the school population, the plan adopted was as follows:

In each school visited the children passed the examiner in single file to have their eyelids inspected for trachoma. Each child was, therefore, personally inspected. During the course of this primary inspection a certain group of children was selected for further inquiry regarding mental development. Their general manner and conduct of approaching the problem of having their eyes inspected, their gait and manner of adjusting themselves to the new situation, served as a guide to selection of a group for further inquiry. The facial expression, stigmata, and general reaction in the emotional field, overage, character of physical development or abnormalities also played a part in their selection.

In addition, the teacher was asked to select the children who appeared slow, stupid, peculiar, underaverage in mental attainments, or who had difficulty, for any reason whatsoever, in doing classwork. The subsequent examination of these children showed that many of them were not retarded.

In order to see in a short time a large group of children representative of a community, it is necessary to adopt some rapid method and the plan outlined above seems to be practical and consistent with accuracy. It not only lends the weight of one who has had some experience with the underaverage and normal child, but is supplemented by

the opinion of the teacher who has had an opportunity of observing from day to day and, in some instances, from year to year, the mental adjustment during the growth of the child.

Each child so selected was graded according to the Binet-Simon scale of grading intelligence. Arbitrary standards, based upon the statistical results of this scale, however, have resulted in classifying children as feeble-minded when such is far from being true. The individual approach to the diagnosis of feeble-mindedness is the one to be recommended, rather than that based upon statistical standards of the results of a series of psychological tests. Individual approach must include some knowledge of the child's environment, heredity, presence of disease, stigmata, the general emotional reaction, his grasp of the situation, his general knowledge, his adjustments, and his method of arriving at conclusions, all of which are significant in the diagnosis of feeble-mindedness. This method, supplemented by formal tests, is conservative and accurate.

#### Prevalence of Feeble-Minded in the Rural Districts Visited in Thirteen Counties of Arkansas.

Fifty-one rural schools were visited in 13 counties during this survey. Of this number, 9 were one-room schools and 42 were of more than one room.

TABLE 1.—*Showing percentage of feeble-minded children in rural schools visited in Arkansas.*

| Counties.         | Number of schools visited. | Number of boys examined. | Number of girls examined. | Number of feeble-minded boys. | Number of feeble-minded girls. | Number of both sexes enrolled in schools visited. | Per cent of attendance. | Per cent of feeble-minded boys. | Per cent of feeble-minded girls. | Per cent of feeble-minded both sexes. |
|-------------------|----------------------------|--------------------------|---------------------------|-------------------------------|--------------------------------|---|-------------------------|---------------------------------|----------------------------------|---------------------------------------|
| Bradley.....      | 6                          | 241                      | 272                       | 2                             | 2                              | 513   | 100                     | 0.8                             | 0.73                             | 0.77                                  |
| Benton.....       | 4                          | 324                      | 358                       | 2                             | 3                              | 1,087   | 71                      | .6                              | .5                               | .51                                   |
| Columbia.....     | 4                          | 362                      | 373                       | 3                             | 3                              | 837   | 87                      | .85                             | .8                               | .83                                   |
| Clark.....        | 3                          | 296                      | 234                       | 2                             | 3                              | 770   | 68                      | .67                             | 1.2                              | .94                                   |
| Chicot.....       | 4                          | 196                      | 213                       | 2                             | .....                          | 505   | 80                      | 1                               | .....                            | .48                                   |
| Garland.....      | 5                          | 114                      | 111                       | 4                             | 1                              | 434   | 51                      | 3.5                             | .9                               | 2.2                                   |
| Grant.....        | 4                          | 256                      | 289                       | 5                             | 2                              | 824   | 66                      | 1.9                             | .6                               | 1.2                                   |
| Jefferson.....    | 4                          | 66                       | 87                        | 1                             | .....                          | 154   | 99                      | 1.5                             | .....                            | .65                                   |
| Little River..... | 4                          | 298                      | 339                       | 2                             | 1                              | 807   | 78                      | .67                             | .29                              | .47                                   |
| Miller.....       | 3                          | 68                       | 85                        | .....                         | 1                              | 200   | 76                      | .....                           | 1.1                              | .6                                    |
| Polk.....         | 4                          | 128                      | 129                       | .....                         | .....                          | 465   | 53                      | .....                           | .....                            | .....                                 |
| Pulaski.....      | 3                          | 80                       | 105                       | .....                         | .....                          | 258   | 71                      | .....                           | .....                            | .....                                 |
| Sebastian.....    | 3                          | 239                      | 238                       | 1                             | 1                              | 832   | 57                      | .4                              | .4                               | .42                                   |
| Total.....        | 51                         | 2,668                    | 2,832                     | 24                            | 17                             | 7,905   | .....                   | .89                             | .6                               | .74                                   |

Referring to Table 1, it will be observed that the percentage of feeble-mindedness varied from none to 3.5 per cent of the boys and from none to 1.2 per cent of the girls. Of two counties, namely, Polk and Pulaski, where no feeble-minded children were found, one had a compulsory school-attendance law and the other had not. In

the county requiring compulsory school attendance 53 per cent of the children were present at the time the schools were visited, and in the county which did not require compulsory school attendance 71 per cent of the total enrollment was present. It is evident, therefore, that the percentage of feeble-mindedness is either very low in these counties or else such children did not attend school. The latter assumption is probably correct.

In Jefferson County, with county supervision but without a compulsory school-attendance law, 99 per cent of the children attended school and no feeble-minded girls were found.

In Chicot County, without county supervision, no feeble-minded girls were observed, although 80 per cent of the total enrollment was present on the day of inspection.

The highest percentage of feeble-mindedness among the boys in the schools visited was observed in Garland County, which had both a compulsory-attendance law and county supervision. The percentage of feeble-mindedness among the girls was also relatively high. The highest percentage of feeble-mindedness among the girls was found in Clark County, which had neither a compulsory school-attendance law nor supervision, although the attendance was 68 per cent of the enrollment.

Unfortunately, the data relative to the nativity of the children examined was so meager and unreliable that it was impossible to draw conclusions as to the relationship of domestic and foreign immigration to the number of feeble-minded in the school population. In general, the rural districts of Polk County are affected more heavily by domestic immigration than are similar districts in Garland County.

The varying sociologic and economic conditions in the districts visited warrant conclusions as to the proportion of feeble-mindedness in the rural school population of the State but not for the purpose of comparing one county with another.

The enrollment in the 51 rural schools visited was 7,905, of which number 5,500 (2,668 boys and 2,832 girls) were present and inspected. Of these, 24 boys, or 0.89 per cent, and 17 girls, or 0.6 per cent, comprising 0.74 per cent of the rural school population examined, were feeble-minded.

#### **Prevalence of the Feeble-Minded in the Urban Districts of Arkansas.**

A glance at Table 2 will show that of the 8,225 children (4,189 boys and 4,036 girls) examined in the urban districts of Arkansas, 52 (28 boys and 24 girls) were found to be mentally defective. The percentage ranges from 0.37 to 0.9 per cent. The percentage of feeble-minded in this group of the population should be somewhere

between these two extremes. The average for the 20 urban schools visited is 0.63 of 1 per cent.

TABLE 2.—*Showing Percentage of feeble-minded children in the urban districts of Arkansas.*

| City.               | Number of boys examined. | Number of girls examined. | Number of feeble-minded boys. | Number of feeble-minded girls. | Number of both sexes enrolled in schools visited. | Total enrolled first to eighth grades 1915-1916. | Per cent of feeble-minded boys. | Per cent of feeble-minded girls. | Per cent of feeble-minded both sexes. |
|---------------------|--------------------------|---------------------------|-------------------------------|--------------------------------|---|--|---------------------------------|----------------------------------|---------------------------------------|
| Little Rock.....    | 1,596                    | 1,522                     | 8                             | 4                              | 3,327   | 5,828  | 0.5                             | 0.26                             | 0.37                                  |
| Fort Smith.....     | 1,087                    | 1,004                     | 11                            | 8                              | 2,171   | 3,281  | 1.0                             | .9                               | .9                                    |
| Hot Springs.....    | 482                      | 465                       | 4                             | 5                              | 1,010   | 2,531  | .85                             | 1.0                              | .9                                    |
| Pine Bluff.....     | 383                      | 373                       | 2                             | 3                              | 804   | 2,400  | .52                             | .8                               | .66                                   |
| Texarkana.....      | 146                      | 137                       | .....                         | 1                              | 337   | 1,200  | .....                           | .72                              | .7                                    |
| Arkadelphia.....    | 218                      | 234                       | 1                             | 2                              | 440   | 440  | .46                             | .85                              | .6                                    |
| Siloam Springs..... | 189                      | 200                       | 1                             | 1                              | 509   | 509  | .52                             | .5                               | .5                                    |
| Mena.....           | 88                       | 101                       | 1                             | .....                          | 410   | 410  | 1.1                             | .....                            | .5                                    |
| Total.....          | 4,189                    | 4,036                     | 28                            | 24                             | 9,008   | 16,599   | .....                           | .....                            | .....                                 |

#### Problematical or Border-Line Feeble-Minded Cases in the School Population.

Since retardation may be due to physical diseases, faulty methods of training, and influences of environment, children who are retarded as much as three years according to formal tests alone can not be classified as feeble-minded. Children of this type are regarded as doubtful cases of feeble-mindedness, which require correction of physical defects, special instruction, training, and observation over extended periods before a definite diagnosis can be made. Some of them become normal, while the rate of mental development of others continues slow as the higher chronological ages are reached.

Unfortunately there is no method of ascertaining the length of time required for a child to overcome his mental retardation after the defects have been corrected.

Of 4,189 boys inspected in the urban schools, 22 were border-line cases; and of 4,036 girls inspected, 13 were observed whose future mental development could not be foretold, but who were regarded as border-line cases. In other words, 0.52 per cent of the boys and 0.32 per cent of the girls were in need of specialized training, although the term feeble-minded could not be applied to them as the result of one examination.

Of the 22 boys whose future mental development is a matter of doubt, 9 were poorly nourished and below par physically, 1, although well nourished, was undersized to such an extent that his chronological age was questioned, 1 had chronically diseased tonsils, and 1 had a marked post-nasal obstruction. Of the 13 girls who were doubtful as to outcome, 2 had very defective vision, 2 had enlarged and chronically diseased tonsils, 1 had post-nasal obstructions, and the nutrition of 2 others was poor.

In the 42 rural schools having more than one room, 10 boys of 2,512 examined and 9 girls of the 2,658 examined were regarded as border-line cases, varying from none to 1 per cent of the boys and from none to 2.5 per cent of the girls—an average of 0.39 per cent of the boys and 0.33 of the girls for the total number examined. In other words, 0.36 per cent of the children examined in these schools were border-line cases.

Of the 10 boys of doubtful mental development, 2 were much undersized. One, although not retarded to a marked degree, had a feeble-minded sister, and 1 who was retarded to a slight degree had a feeble-minded brother.

Of the girls who were doubtful as to outcome, one was too large for her chronological age, the mother of another was an epileptic, and one, retarded in slight degree, had two feeble-minded brothers.

In 9 one-room schools having an enrollment of 516 children, with 156 boys and 174 girls attending, 3 boys and 1 girl were doubtful as to outcome. Of these, 2 came from very poor environments and had chronically diseased tonsils, and 1 began school late and came from a very poor environment. The percentage of border-line cases in the one-room schools was 1.9 per cent of the boys and 0.5 per cent of the girls, an average of 1.2 per cent.

Of the 5,500 children (2,668 boys and 2,832 girls) examined in the rural districts, 13, or 0.48 per cent, of the boys and 10, or 0.35 per cent, of the girls, or 0.4 per cent of the total examined, were regarded as border-line cases.

The undue retardation exhibited by the above-mentioned children is the determining factor in the classification. In view of the fact that only 0.36 per cent of the children attending the better class rural schools, in contrast with 1.2 per cent of those attending the one-room rural schools, were so classified, suggests the possibility that these border-line cases may be cases of simple retardation due to faulty teaching methods or poor environment rather than to an inherent mental defect.

#### **Proportion of Feeble-Minded in the School Population of the State of Arkansas.**

The prevalence of feeble-mindedness in the rural districts is high in both Grant and Garland Counties. In the urban districts of Garland County it is higher than in other urban districts of the State. The distribution of mental defectiveness in the combined urban and rural districts of the State varied from 0.18 per cent to 1.5 per cent in the counties surveyed. Of 13,725 children examined, 93, or 0.67 per cent, are definitely feeble-minded.

As the districts visited are believed to be representative of the varied social and economic conditions of the State and to embrace a representative population, the determination of 67 feeble-minded

children in every 10,000 school children of the State is considered as representative of the prevalence of this condition.

The existence of 67 feeble-minded children in every 10,000 is not an overestimate because of the presence of border-line cases. These were observed in the proportion of 40 in every 10,000 of the school population. Furthermore, the lower grade feeble-minded cases do not attend public schools. Especially is this true in the case of idiots and low-grade imbeciles who do not attend school because of the lax enforcement of the compulsory school attendance law resulting from an incomplete school census.

According to the 1910 census report, there were in Arkansas 345,282 white children between the ages of 6 and 14 years. In 1910, 241,938, or 70.1 per cent, of these were attending the public schools. In 1913 (last report of State board of public instruction) there were 317,386 white children enrolled in the schools of Arkansas. Of this number 208,490, or 62 per cent, were attending school. Based on the results of this survey and the attendance in 1913, there are not less than 2,100 of the white children who are feeble-minded. Calculated upon basis of the 1910 census report, not less than 2,200 of the white children between the ages of 6 and 14 years are definitely feeble-minded.

The mortality rate among the feeble-minded is high. This is probably due to failure to understand the principles of personal hygiene, and to irregular employment, improvidence, and bad housing. Clark,<sup>1</sup> in the study of 1,000 feeble-minded children, showed that the greatest number died under 25 years of age, 30 lived to be over 35, 17 to be over 40, and only 4 over 50 years of age.

Clark and Stowell,<sup>1</sup> during a period of nine years (1903 to 1911), cared for 4,275 patients, 2,667 classified as feeble-minded and 1,608 as idiots. Of the first group, 184, or 6.5 per cent, died. Of the second group, 316, or 19.6 per cent, died. During the same period, at the same place, the mortality rate among 8,000 children mentally normal was 3.38 per cent. These authors conclude that low mental development coincides with low physical stamina.

According to Clark and Atwood, one-fifth of the children who are feeble-minded die in less than one year. Among 200 feeble-minded children Atwood found 20 per cent with positive Wasserman reaction, although syphilis was not recognized as a factor in any of the deaths. If it be true that the mortality rate is unusually high in this group of the population, it is likely that 30 in every 10,000 of the general population are feeble-minded.

In 1915 the estimated white population of Arkansas was 1,229,987. According to this estimate the present survey would show that there

<sup>1</sup> "Feeble Minded and Idiots, a Study of the Mortality of Four Thousand." By Clark and Stowell. N. Y. Med. Jour., Vol. XCVII, 2-22-13, p. 376.

are 3,600 persons in the general population of the State of Arkansas who are definitely feeble-minded.

Evidence is accumulating to show that heredity is a prominent factor in mental deficiency. It is estimated from careful observations that 65 per cent of feeble-mindedness is inherited. If it be considered that 50 per cent of feeble-mindedness in Arkansas is due to defective ancestry, there are at least 300 families in that State whose progeny will be feeble-minded. One family in every 300 is composed of potential criminals, dependents, disseminators of disease, and is an economic loss to the community in which it lives.

**Prevalence of Retarded Children Exclusive of the Feeble-Minded and Border-line Feeble-Minded in the Schools of Arkansas.**

Retarded children are found in every large school system. The teachers, as a rule, recognize many children who do not profit by the usual course of study. The following table gives the per cent of retarded children in urban districts who require the correction of physical disorders and faulty methods of training before they will be able to compete on equal terms with the average normal children.

In the rural districts those who require special training and medical attention range from none to 2.5 per cent of the boys and none to 3 per cent of the girls in the schools visited. Of the 2,668 boys examined in the rural districts 49, or 1.8 per cent, were retarded. Of the 2,832 girls examined in the rural districts 45, or 1.6 per cent, were retarded.

Of the 49 boys of the rural schools who were retarded, 1 was poorly nourished, 1 had adenoids, 1 had diseased tonsils and adenoids, 2 had speech defects, 2 had epilepsy, 1 had had an attack of typhoid fever, since which he had been very dull mentally. Of the 45 girls who were retarded 3 had defects of vision, 4 were very poorly nourished, 3 had had recent malarial paroxysms and were probable malarial carriers, and 2 had diseased tonsils.

TABLE 3.—*Showing percentage of retarded children in urban districts exclusive of feeble-minded and border-line cases who do not profit by usual course of study.*

| Cities.             | Number of retarded boys. | Per cent boys retarded. | Number of retarded girls. | Per cent girls retarded. |
|---------------------|--------------------------|-------------------------|---------------------------|--------------------------|
| Little Rock.....    | 16                       | 1                       | 9                         | 0.5                      |
| Fort Smith.....     | 17                       | 1.5                     | 12                        | 1.1                      |
| Hot Springs.....    | 14                       | 2.9                     | 8                         | 1.7                      |
| Pine Bluff.....     | 3                        | .7                      | 12                        | 3.2                      |
| Texarkana.....      | 2                        | 1.3                     | 5                         | 3.6                      |
| Arkadelphia.....    | 2                        | .9                      | 3                         | 1.2                      |
| Siloam Springs..... | 4                        | 2.1                     | 3                         | 1.5                      |
| Mena.....           | 4                        | 4                       | 1                         | .9                       |
| Total.....          | 62                       | 1.4                     | 53                        | 1.3                      |

Of the 62 boys in the urban districts who were retarded and unable to profit by the usual course of study, 3 had defects of vision, 2 had defects of hearing, 5 had adenoids, 1 was very anemic, 1 had epilepsy, 1 was a "shut-in personality," 1 began school late in life, 1 had cleft palate, 4 had speech defects, 1 was a deaf-mute, 4 were dependent and had suffered privation, and 1 was delinquent.

Of the 53 girls who were retarded and unable to profit by the usual course of study, 1 had defects of vision, 1 defects of hearing, 1 had adenoids, 2 had enlarged and diseased tonsils, 1 had adenoids and enlarged tonsils, 4 were very anemic (3 of whom had had recent malarial paroxysms), 1 had a "shut-in personality," 1 had chorea, 2 were victims of poverty, and 3 were delinquent.

#### Physical Disorders of Children Not Definitely Retarded But Who Were Slower Than the Normal.

Children who are handicapped by physical disorders should have these corrected in order to secure the maximum efficiency. In the urban districts, 223 boys and 171 girls were slow, but not definitely retarded. Of this number 43, or 19.2 per cent of the boys, and 27, or 15.8 per cent of the girls, had some physical disorder which potentially made them candidates for the special classes.

In the following table is given the percentage of physical disorders in the boys and girls of the urban districts who were slow in their school work.

TABLE 4.—*Physical disorders of underaverage children in urban districts of Arkansas.*

|                                 | Boys. | Girls. |                     | Boys. | Girls. |
|---------------------------------|-------|--------|---------------------|-------|--------|
| Adenoids.....                   | 3.1   | 1.7    | Undersized.....     | 0.8   | .....  |
| Tonsils enlarged and diseased.. | 2.6   | 1.7    | Anemic.....         | 2.6   | 2.3    |
| Tonsils and adenoids.....       | .4    | .....  | Speech defects..... | 1.7   | 2.8    |
| Defects of hearing.....         | .8    | .....  | Chorea.....         | 1.3   | .....  |
| Defects of vision.....          | 4.8   | 4.6    | Paralysis.....      | ..... | 2.3    |

Of the 2.6 per cent boys who were anemic 1.3 per cent had had recent malaria and were probably carriers. Of the 2.3 per cent girls who were anemic 1.7 per cent had had recent malaria.

Of the 2.3 per cent girls who had some form of paralysis 1.7 per cent of the cases were due to poliomyelitis.

In the rural districts visited, 162 boys and 125 girls were slow in their school work, but were not regarded definitely retarded. Thirty-one, or 19 per cent, of the boys and 15, or 12 per cent, of the girls had some physical disorder.

In the following table is given the percentage of physical disorders observed in the boys and girls in the rural districts who were slow in their school work, but not definitely retarded.

TABLE 5.—*Physical disorders of underaverage children in rural districts of Arkansas.*

|                                    | Per cent boys. | Per cent girls. |                                 | Per cent boys. | Per cent girls. |
|------------------------------------|----------------|-----------------|---------------------------------|----------------|-----------------|
| Adenoids.....                      | 2.4            | 1.6             | Undersized and underweight..... | 4.9            | .....           |
| Tonsils enlarged and diseased..... | 3              | .8              | Suspected of syphilis.....      | .6             | .....           |
| Tonsils and adenoids.....          | .6             | .8              | Chorea.....                     | .6             | .....           |
| Defects of hearing.....            | 2.4            | .....           | Anemic.....                     | .....          | 3.2             |
| Defects of vision.....             | 5.5            | 4.8             | Goiter.....                     | .....          | .8              |

Of the 3.2 per cent girls who are anemic 1.6 per cent or half had had recent malaria.

TABLE 6.—*Showing percentage of total children examined who require special training.*

| City.            | Per cent boys. | Per cent girls. | City.               | Per cent boys. | Per cent girls. |
|------------------|----------------|-----------------|---------------------|----------------|-----------------|
| Little Rock..... | 1.8            | 1.2             | Arkadelphia.....    | 1.8            | 2.5             |
| Fort Smith.....  | 3.2            | 2.1             | Siloam Springs..... | 2.5            | 2.5             |
| Hot Springs..... | 4.1            | 3.4             | Mena.....           | 5.2            | .9              |
| Pine Bluff.....  | 2.3            | 4.2             | Total.....          | 2.6            | 2.4             |
| Texarkana.....   | 2.7            | 4.3             |                     |                |                 |

In the urban districts, 7.2 per cent of 8,225 children were given the benefit of individual and intensive inquiry. Of 5,500 rural school children examined 9 per cent were given individual and intensive inquiry. Of the 5,500 children examined in the rural districts 2.8 per cent are unable to profit by the usual course of study.

#### What Has Been Done in Arkansas to Provide Special Instruction for the Underaverage Child.

It will be observed in Table 6 that the percentage of underaverage children is lowest in Little Rock, where a summer school is provided for the children who fail to make grade. This city also provides one special class for exceptionally backward children. The summer school must certainly play some part in lessening the number of cases of retardation. The special class in this city for exceptionally backward children is a step in the right direction. The equipment of the building is poor. These children should have the benefit of working under the best possible conditions. Good tools and proper surroundings add not only to industrial efficiency but to the efficiency of children in their school work. Little Rock is the only city in the State where special classes for children of this type are provided.

#### Discussion and Recommendations.

*Care of the feeble-minded.*—The proper segregation of the feeble-minded by the State will add in future years to the welfare of each and every community. At present many cases of feeble-mindedness

are housed in the State institutions for the insane. The per capita cost for caring for the insane in this country varies from \$150 to \$250 per annum. In the case of feeble-minded persons who are cared for in institutions for the insane, no attempt is made to train them and no good opportunity is presented whereby they may be made to pay for their support. In the better regulated American institutions for the feeble minded, an attempt is made to train this class of individuals so that they may be in a measure self-supporting.

The authorities of the State Hospital for Nervous Diseases at Little Rock estimate that not less than 100 of the inmates are feeble-minded who will always be a burden upon the Commonwealth either inside or outside the institution. With a per capita cost of \$200 per annum, \$20,000 is annually expended for their care. These cases occupy beds which are intended for the insane and at a greater cost than in an institution especially provided for their care.

The feeble-minded are unable to follow regular employment and therefore add to the number of "floating" or irregular employees. Owing to their tendency to become criminals and paupers, and to their inability to comprehend the principles of right living and personal hygiene, this group of individuals forms a large proportion of the penal population and adds materially to the spread of communicable diseases. From an economic, sanitary, and sociological standpoint the State of Arkansas should provide an institution for the segregation, care, and training of its feeble-minded.

*Children who require individual care and recasting of educational methods.*—It is believed that the recasting of educational methods will serve a true purpose in mental hygiene. Certain individuals who, by reason of an inability to adjust themselves to unusual conditions, are failures because they attempt tasks for which they are but poorly fitted by reason of improper training in early life.

The underaverage child in the regular classes does not profit by the usual courses of study. His presence demands extra attention from the teacher that might better be devoted to the children of normal intelligence. Children who lag in class work tend to prevent normal children from advancing as rapidly as they are otherwise capable of doing.

*Organization of special classes.*—It is essential to know the number of retarded and mentally defective children in a community before the organization of special classes can be accomplished. Opinions differ as to the best way to organize such classes. In general, it is good policy to place the decision in the hands of the supervisor of special classes and permit her to effect an organization in accordance with her own knowledge of local needs and local difficulties. Some authorities regard each special class as a diagnosis station as well as

a place for special training. Others advise the establishment of a central class for diagnosis and classification, and that the children should be admitted to the special classes only after a period of observation in the central class to determine the degree of mental defect and capacity to receive training.

The great advantage of the former plan is that each class will have a constant inflow and outflow which tends to prevent the rather hopeless attitude that sometimes exists in these classes, while at the same time it adds much to the experience and training of the teachers who are to devote themselves to this work. It is the experience of every city in which special classes have been established that nearly as many children go back from the observation class to the regular classes after the correction of some physical defect or the use of some special methods of instruction as remain in special classes during their school life. The children who return to the regular classes are not mentally defective. It is a point not to be forgotten that mental deficiency is not a curable condition, and that the function of the special class is not to attempt to make mentally defective children normal, but to fit them to be happier and more useful even though handicapped by a defect that can not be removed.

It would seem desirable in cities to establish the first special class at the city training school, if there be one, and to use it for both a diagnosis and classification station and a class for special training. It should contain not more than 15 pupils, and pupil teachers should be assigned to assist the supervisor. Thus the first class will form a clinic in which those who are to undertake work in classes formed subsequently may be trained. A number of these pupil teachers who pass through this class develop qualifications needed for this work and, what is of greater importance, a sincere interest in its aims that is essential in all those who are successful in this field of pedagogy.

Every facility should be given teachers who take up this work to increase their information and experience. Visits to the State institutions and summer work at one of the many excellent schools which give special instruction in the subject of mental deficiency should constitute features in their training.

The adoption of such a program by a progressive city needs no defense at the present time. There are but few cities in which steps are not being taken to organize this work. Some of the results will be immediate and striking and some will be remote but none the less important.

Among the first results will be the immediate relief experienced by all the regular classes. Many hours that teachers now devote to pupils with defective brains will be available for the better instruction of normal children. Many children who are not mentally defec-

tive but who have faulty habits of work, dependent upon early defects, or training, or physical disturbances, will have their mental processes carefully studied by modern scientific methods and will be enabled to return to the regular classes with defects corrected and latent mental resources liberated. The mentally defective children will be placed in an environment in which they are not misfits and in which they can be trained to the limits of capacity which their mental defects impose. In some cases they will be trained for happier and more useful lives in the community; in others they will be fitted for the institutional life which all States must sooner or later provide for children who can never take up the tasks and responsibilities of adult life.

One of the most necessary factors in dealing effectively with the problem of mental deficiency in the schools is an adequate school census. Such a census is indispensable as a basis for the enumeration of the mentally defective and to determine the relation of mental deficiency to truancy and other forms of juvenile delinquency.

*Medical inspection of school children.*—The medical inspection of school children should not only act to prevent the spread of communicable diseases, but serve also to discover the children who require correction of physical disorders. Children with physical disorders are potential candidates for the special classes. Not only are they slow but they often fail to make grades.

This survey has shown that there are 327 boys and 237 girls, exclusive of the feeble-minded, who are either borderline cases or retarded cases, or are slow in school work. Thirty-one per cent of these boys and 29.6 per cent of these girls have some physical disorder. Of the 221 boys and 179 girls who are borderline and definitely retarded cases, 16.3 per cent of the boys and 13.3 per cent of the girls have some physical disorder. It is not assumed that these physical disorders are the sole cause of retardation, but they are an added handicap that plays no small part in preventing them from working with maximum efficiency.

The time lost from school and the repetition of school work from year to year not only illy fits these children for future life work, but adds materially to the cost of education.

**PLAGUE-PREVENTION WORK.**

**CALIFORNIA.**

The following reports of plague-prevention work in California were received from Passed Asst. Surg. Williams, of the United States Public Health Service, in charge of the work.

WEEK ENDED OCT. 28, 1916.

FEDERAL AND COUNTY INSPECTION SERVICE.

(For the enforcement of the law of June 7, 1913.)

| Counties.         | Number of inspections. | Number of re-inspections. | Acres inspected. | Acres re-inspected. | Acres treated. |               | Holes treated. |
|-------------------|------------------------|---------------------------|------------------|---------------------|----------------|---------------|----------------|
|                   |                        |                           |                  |                     | Waste balls.   | Grain.        |                |
| Contra Costa..... | 2                      | 75                        | 675              | 20,719              | .....          | 4,840         | .....          |
| Alameda.....      | .....                  | 90                        | .....            | 25,227              | .....          | 4,181         | .....          |
| Stanislaus.....   | 45                     | 79                        | 2,839            | 20,775              | 200            | 7,769         | 420            |
| Santa Cruz.....   | .....                  | 33                        | .....            | 4,628               | .....          | 1,530         | .....          |
| Merced.....       | 16                     | 50                        | 5,870            | 19,288              | .....          | 18,658        | .....          |
| Monterey.....     | 25                     | 22                        | 11,332           | 21,832              | .....          | 17,135        | .....          |
| San Benito.....   | 13                     | 30                        | 27,735           | 34,321              | .....          | 28,321        | .....          |
| Santa Clara.....  | 32                     | 14                        | 11,124           | 8,895               | 50             | 4,420         | 490            |
| San Mateo.....    | 10                     | 7                         | 534              | 1,952               | .....          | 570           | .....          |
| <b>Total.....</b> | <b>143</b>             | <b>400</b>                | <b>60,109</b>    | <b>157,637</b>      | <b>250</b>     | <b>87,424</b> | <b>910</b>     |

**RATS COLLECTED AND EXAMINED FOR PLAGUE.**

Oakland:

|                |       |
|----------------|-------|
| Collected..... | 49    |
| Examined.....  | 49    |
| Infected.....  | None. |

**OPERATIONS ON THE WATER FRONT.**

|   |     |
|---|-----|
| Number of vessels inspected for rat guards..        | 25  |
| Number of reinspections made on vessels...          | 7   |
| Number of new rat guards procured.....              | 2   |
| Rats trapped on wharves and water front..           | 72  |
| Rats trapped on vessels.....                        | 34  |
| Number of traps set on wharves and water front..... | 306 |
| Number of traps set on vessels.....                 | 120 |

**OPERATIONS ON THE WATER FRONT—continued.**

|   |       |
|---|-------|
| Number of vessels trapped on.....                           | 21    |
| Poisons placed on water front (pieces)....                  | 3,600 |
| Bait used on water front and vessels, bacon (pounds).....   | 4     |
| Amount of bread used in poisoning water front (loaves)..... | 12    |
| Number of pounds of poison used on water front.....         | 4     |

The following is a record of municipal work performed under the supervision of the Public Health Service:

**COOPERATIVE MUNICIPAL WORK.**

|  |        |
|--|--------|
| Number of premises inspected.....  | 689    |
| Number of nuisances abated.....  | 90     |
| Number of rats trapped.....  | 106    |
| Number of rats sent to laboratory.....   | 106    |
| Number of rats examined.....   | 81     |
| Number of poisons placed.....  | 17,900 |
| Number garbage cans stamped approved...  | 450    |
| Rats identified: <i>Mus norvegicus</i> , 36; <i>Mus rattus</i> , 15; <i>Mus alexandrinus</i> , 55. |        |

**WORK DONE ON OLD BUILDINGS.**

|   |        |
|---|--------|
| Wooden floors removed.....  | 11     |
| Number yards and passageways, planking removed.....                 | 10     |
| Cubic feet new foundation walls installed...                        | 5,145  |
| Concrete floors installed (square feet, 71,500).                    | 18     |
| Number of basements concreted (square feet, 11,100).....            | 15     |
| Yards and passageways, etc. concreted (square feet, 5,855).....     | 9      |
| Total area concrete laid (square feet).....                         | 88,455 |
| Number floors rat proofed with wire cloth (square feet, 6,275)..... | 6      |
| Buildings razed.....  | 4      |

## WEEK ENDED NOV. 4, 1916.

## FEDERAL AND COUNTY INSPECTION SERVICE.

(For the enforcement of the law of June 7, 1913.)

| Counties.          | Number of inspections. | Number or re-inspections. | Acres inspected. | Acres re-inspected. | Acres treated. |         | Holes treated. |
|--------------------|------------------------|---------------------------|------------------|---------------------|----------------|---------|----------------|
|                    |                        |                           |                  |                     | Waste balls.   | Grain.  |                |
| Contra Costa ..... |                        | 62                        |                  | 16, 016             |                | 5, 475  |                |
| Alameda .....      |                        | 119                       |                  | 30, 132             |                | 3, 479  |                |
| Stanislaus .....   | 41                     | 75                        | 23, 204          | 27, 441             | 1, 536         | 13, 795 | 1, 368         |
| Santa Cruz .....   |                        | 34                        |                  | 6, 336              |                | 561     |                |
| Merced .....       | 8                      | 31                        | 8, 045           | 26, 050             |                | 31, 330 |                |
| Monterey .....     | 13                     | 26                        | 8, 936           | 20, 127             |                | 21, 396 |                |
| San Benito .....   | 20                     | 49                        | 34, 190          | 36, 312             |                | 11, 472 |                |
| Santa Clara .....  | 32                     | 18                        | 10, 946          | 3, 765              | 45             | 2, 957  | 360            |
| San Mateo .....    | 12                     | 6                         | 2, 280           | 1, 196              |                | 145     |                |
| Total .....        | 126                    | 420                       | 84, 601          | 167, 425            | 1, 581         | 90, 610 | 1, 728         |

## RATS COLLECTED AND EXAMINED FOR PLAGUE.

|                      |  |       |
|----------------------|--|-------|
| Oakland:             |  |       |
| Collected .....      |  | 92    |
| Examined .....       |  | 92    |
| Found infected ..... |  | None. |

## RECORD OF PLAGUE INFECTION.

| Places in California.                             | Date of last case of human plague. | Date of last case of rat plague. | Date of last case of squirrel plague. | Total number rodents found infected since May, 1907. |
|---|------------------------------------|----------------------------------|---------------------------------------|--|
| Cities:   |                                    |                                  |                                       |  |
| San Francisco .....                               | Jan. 30, 1908                      | Oct. 23, 1908                    | (1)                                   | 398 rats.  |
| Oakland .....                                     | Aug. 9, 1911                       | Dec. 1, 1908                     | (1)                                   | 123 rats.  |
| Berkeley .....                                    | Aug. 28, 1937                      | (1)                              | (1)                                   | None.  |
| Los Angeles .....                                 | Aug. 11, 1908                      | (1)                              | Aug. 21, 1908                         | 1 squirrel.  |
| Counties:   |                                    |                                  |                                       |  |
| Alameda (exclusive of Oakland and Berkeley) ..... | Sept. 24, 1909                     | Oct. 17, 1909 <sup>2</sup>       | June 23, 1916                         | 293 squirrels; 1 wood rat.                           |
| Contra Costa .....                                | July 13, 1915                      | (1)                              | June 23, 1916                         | 1, 629 squirrels.                                    |
| Fresno .....                                      | (1)                                | (1)                              | Oct. 27, 1911                         | 1 squirrel.  |
| Merced .....                                      | (1)                                | (1)                              | May 12, 1916                          | 7 squirrels.   |
| Monterey .....                                    | (1)                                | (1)                              | May 27, 1916                          | 38 squirrels.  |
| San Benito .....                                  | June 4, 1913                       | (1)                              | July 1, 1916                          | 72 squirrels.  |
| San Joaquin .....                                 | Sept. 18, 1911                     | (1)                              | Aug. 26, 1911                         | 18 squirrels.  |
| Santa Clara .....                                 | Aug. 31, 1910                      | (1)                              | June 21, 1916                         | 32 squirrels.  |
| San Luis Obispo .....                             | (1)                                | (1)                              | Jan. 29, 1910                         | 1 squirrel.  |
| Santa Cruz .....                                  | (1)                                | (1)                              | May 30, 1916                          | 5 squirrels.   |
| Stanislaus .....                                  | (1)                                | (1)                              | June 2, 1911                          | 18 squirrels.  |
| San Mateo .....                                   | (1)                                | (1)                              | June 21, 1916                         | 1 squirrel.  |

<sup>1</sup> None.<sup>2</sup> Wood rat.

The work is being carried on in the following-named counties: Alameda, Contra Costa, Stanislaus, Monterey, San Benito, Santa Cruz, Merced, Santa Clara, and San Mateo.

## OPERATIONS ON THE WATER FRONT.

|  |     |
|--|-----|
| Number of vessels inspected for rat guards..       | 18  |
| Number of re-inspections made on vessels..         | 1   |
| Number of new rat guards procured .....            | 4   |
| Rats trapped on wharves and water fronts..         | 66  |
| Rats trapped on vessels .....                      | 40  |
| Number traps set on wharves and water fronts ..... | 284 |
| Number of traps set on vessels .....               | 101 |

## OPERATIONS ON THE WATER FRONT—continued.

|  |        |
|--|--------|
| Number of vessels trapped on .....                           | 17     |
| Poisons placed on water front (pieces) .....                 | 3, 600 |
| Bait used on water front and vessels—bacon (pounds) .....    | 5      |
| Amount of bread used in poisoning water front (loaves) ..... | 12     |
| Number of pounds of poison used on water front .....         | 4      |



## WASHINGTON—SEATTLE—PLAGUE ERADICATION.

The following report of plague-eradication work at Seattle for the week ended November 4, 1916, was received from Surg. Lloyd, of the United States Public Health Service, in charge of the work:

| RAT PROOFING.  |        | WATER FRONT.   |       |
|--|--------|--|-------|
| New buildings inspected.....                                     | 16     | Vessels inspected and histories recorded....                                       | 15    |
| New buildings reinspected.....                                   | 25     | Vessels fumigated.....   | 2     |
| Basements concreted, new buildings (square feet, 17,245).....    | 10     | Sulphur used, pounds.....  | 1,600 |
| Floors concreted, new buildings (square feet, 23,280).....       | 11     | New rat guards installed.....  | 8     |
| Yards, etc., concreted, new structures (square feet, 1,750)..... | 4      | Defective rat guards repaired.....   | 12    |
| Sidewalks concreted (square feet).....                           | 8,206  | Fumigation certificates issued.....  | 2     |
| Total concrete laid, new structures (square feet).....           | 50,481 | Port sanitary statements issued.....   | 35    |
| New buildings elevated.....                                      | 5      | The usual day and night patrol was maintained to enforce rat guarding and fending. |       |
| New premises rat proofed, concrete.....                          | 21     | MISCELLANEOUS WORK.  |       |
| Old buildings inspected.....                                     | 3      | Rat-proofing notices sent to contractors, new buildings.....                       | 12    |
| Premises rat proofed, concrete, old buildings.....               | 3      | Letters sent in re rat complaints.....   | 5     |
| Floors concreted, old buildings (square feet, 3,480).....        | 3      | Health lectures delivered.....   | 1     |
| Wooden floors removed, old buildings.....                        | 3      | RODENTS EXAMINED IN EVERETT.   |       |
| Buildings razed.....   | 2      | Mus norvegicus trapped.....  | 65    |
| LABORATORY AND RODENT OPERATIONS.                                |        | Mus musculus trapped.....  | 4     |
| Dead rodents received.....                                       | 10     | Total.....   | 69    |
| Rodents trapped and killed.....                                  | 371    | Rodents examined for plague infection.....   | 63    |
| Rodents recovered after fumigation.....                          | 10     | Rodents proven plague infected.....  | None. |
| Total.....   | 391    | RAT PROOFING OPERATIONS IN EVERETT.  |       |
| Rodents examined for plague infection.....                       | 268    | New buildings reinspected.....   | 4     |
| Rodents proven plague infected.....                              | None.  | New buildings, basements concreted (square feet, 1,640).....                       | 1     |
| Poison distributed, pounds.....                                  | 10     | New buildings, floors concreted (square feet, 800).....                            | 1     |
| Bodies examined for plague infection.....                        | 3      | Total concrete laid, new buildings (square feet).....                              | 2,440 |
| Bodies found plague infected.....                                | None.  | RODENTS EXAMINED IN TACOMA.  |       |
| CLASSIFICATION OF RODENTS.                                       |        | Mus norvegicus trapped.....  | 134   |
| Mus rattus.....  | 29     | Mus alexandrinus trapped.....  | 2     |
| Mus alexandrinus.....  | 59     | Total.....   | 136   |
| Mus norvegicus.....  | 230    | Rodents examined for plague infection.....   | 133   |
| Mus musculus.....  | 73     | Rodents proven plague infected.....  | None. |

## HAWAII—HILO—PLAGUE PREVENTION.

The following report of plague-prevention work at Hilo, Hawaii, for the week ended October 21, 1916, was received from Surg. Trotter, of the United States Public Health Service:

|   |       |  |       |
|---|-------|--|-------|
| Number of rats and mongoose received at laboratory.....   | 3,124 | Classification of rats trapped and found dead:               |       |
| Number of rats trapped.....                               | 3,055 | Mus norvegicus.....  | 590   |
| Number of mongoose taken.....                             | 69    | Mus alexandrinus.....  | 356   |
| Number of rats and mongoose examined macroscopically..... | 3,124 | Mus rattus.....  | 587   |
| Number of rats and mongoose plague infected.....          | None. | Mus musculus.....  | 1,522 |
|   |       | Last case of rat plague, Paauhau Sugar Co., Jan. 18, 1916.   |       |
|   |       | Last case of human plague, Paauhau Sugar Co., Dec. 16, 1915. |       |

# PREVALENCE OF DISEASE.

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.*

## UNITED STATES.

### ANTHRAX.

#### Massachusetts Report for October, 1916.

During the month of October, 1916, one case of anthrax was reported in Massachusetts.

### CEREBROSPINAL MENINGITIS.

#### State Reports for October, 1916.

| Place.                     | New cases reported. | Place.                          | New cases reported. |
|----------------------------|---------------------|---------------------------------|---------------------|
| <b>Maryland:</b>           |                     | <b>Massachusetts—Continued.</b> |                     |
| Baltimore City.....        | 2                   | Worcester County—               |                     |
| Harford County—            |                     | Clinton Township.....           | 1                   |
| Havre de Grace.....        | 1                   | Worcester.....                  | 1                   |
| Total.....                 | 3                   | Total.....                      | 11                  |
| <b>Massachusetts:</b>      |                     | <b>Vermont:</b>                 |                     |
| Essex County—              |                     | Rutland County—                 |                     |
| Lawrence.....              | 1                   | Proctor.....                    | 1                   |
| Hampden County—            |                     |                                 |                     |
| Chicopee.....              | 1                   | <b>Wisconsin:</b>               |                     |
| Middlesex County—          |                     | Green County.....               | 1                   |
| Lowell.....                | 1                   | Juneau County.....              | 1                   |
| Plymouth County—           |                     | Milwaukee County.....           | 1                   |
| Mattapoisett Township..... | 1                   | Sheboygan County.....           | 1                   |
| Suffolk County—            |                     | Walworth County.....            | 1                   |
| Boston.....                | 5                   | Total.....                      | 5                   |

#### City Reports for Week Ended Nov. 4, 1916.

| Place.                 | Cases. | Deaths. | Place.                | Cases. | Deaths. |
|------------------------|--------|---------|-----------------------|--------|---------|
| Chicago, Ill.....      | 3      |         | Orange, N. J.....     |        | 1       |
| Cincinnati, Ohio.....  | 1      |         | Pasadena, Cal.....    | 1      |         |
| Cleveland, Ohio.....   |        | 1       | Pittsburgh, Pa.....   | 1      |         |
| Fitchburg, Mass.....   |        | 1       | Providence, R. I..... |        | 1       |
| Newark, N. J.....      | 1      |         | St. Louis, Mo.....    | 1      | 1       |
| New Britain, Conn..... | 1      |         | San Jose, Cal.....    | 1      |         |
| New York, N. Y.....    | 5      | 3       | Wilmington, Del.....  | 1      | 1       |

## DIPHThERIA.

Georgia—Rome.

Asst. Surg. Slaughter reported November 20, 1916, that during the week ended November 18, 1916, 1 case of diphtheria was notified in Rome, Ga., making a total of 25 cases, with 1 death, reported since the beginning of the present outbreak.

See also Diphtheria, measles, scarlet fever, and tuberculosis, p. 3266.

## ERYSIPELAS.

## City Reports for Week Ended Nov. 4, 1916.

| Place.                 | Cases. | Deaths. | Place.                | Cases. | Deaths. |
|------------------------|--------|---------|-----------------------|--------|---------|
| Boston, Mass.....      |        | 2       | Muscatine, Iowa.....  | 1      |         |
| Buffalo, N. Y.....     | 1      |         | Nanticoke, Pa.....    | 1      | 9       |
| Chicago, Ill.....      | 11     | 2       | Newark, N. J.....     | 2      |         |
| Cleveland, Ohio.....   | 3      |         | New York, N. Y.....   |        | 3       |
| Coffeyville, Kans..... | 1      |         | Omaha, Nebr.....      | 1      |         |
| Cumberland, Md.....    | 1      |         | Philadelphia, Pa..... | 2      |         |
| Denver, Colo.....      | 1      |         | Pittsburgh, Pa.....   | 5      |         |
| Detroit, Mich.....     | 2      |         | Rochester, N. Y.....  | 1      |         |
| Erie, Pa.....          | 1      |         | St. Joseph, Mo.....   | 1      |         |
| Harrisburg, Pa.....    | 2      |         | St. Louis, Mo.....    | 3      | 1       |
| Hartford, Conn.....    | 1      |         | St. Paul, Minn.....   | 2      |         |
| Jackson, Mich.....     | 1      |         | Seattle, Wash.....    | 1      |         |
| Johnstown, Pa.....     | 1      |         | Stockton, Cal.....    | 1      |         |
| Kalamazoo, Mich.....   | 1      |         | Topeka, Kans.....     | 1      |         |
| Los Angeles, Cal.....  | 2      |         | Williamsport, Pa..... | 1      |         |

## MALARIA.

## State Reports for October, 1916.

| Place.                     | New cases reported. | Place.                  | New cases reported. |
|----------------------------|---------------------|-------------------------|---------------------|
| <b>Maryland:</b>           |                     | <b>Massachusetts:</b>   |                     |
| Allegany County—           |                     | Bristol County—         |                     |
| Annapolis.....             | 1                   | Fall River.....         | 5                   |
| Calvert County—            |                     | Norfolk County—         |                     |
| Barstow.....               | 1                   | Wellesley Township..... | 1                   |
| Caroline County—           |                     | Total.....              | 6                   |
| North Wales.....           | 4                   |                         |                     |
| Charles County—            |                     | <b>New Jersey:</b>      |                     |
| Indian Head.....           | 1                   | Bergen County.....      | 2                   |
| Allens Fresh, R. F. D..... | 1                   | Essex County.....       | 7                   |
| Pomonkey, R. F. D.....     | 2                   | Hudson County.....      | 3                   |
| Bel Alton, R. F. D.....    | 1                   | Mercer County.....      | 1                   |
| Wicomico County—           |                     | Middlesex County.....   | 3                   |
| Stump Point.....           | 1                   | Passaic County.....     | 7                   |
| Salisbury.....             | 1                   | Somerset County.....    | 8                   |
| Total.....                 | 13                  | Sussex County.....      | 10                  |
|                            |                     | Total.....              | 41                  |

## City Reports for Week Ended Nov. 4, 1916.

| Place.                 | Cases. | Deaths. | Place.                 | Cases. | Deaths. |
|------------------------|--------|---------|------------------------|--------|---------|
| Birmingham, Ala.....   |        | 1       | New Orleans, La.....   | 14     | 2       |
| Boston, Mass.....      | 1      |         | Passaic, N. J.....     | 3      |         |
| Cleveland, Ohio.....   | 1      |         | Perth Amboy, N. J..... | 2      |         |
| Fall River, Mass.....  | 11     |         | Stockton, Cal.....     | 1      |         |
| Jersey City, N. J..... |        | 1       | Worcester, Mass.....   | 1      |         |
| Mobile, Ala.....       |        | 1       |                        |        |         |

**MEASLES.**

See Diphtheria, measles, scarlet fever, and tuberculosis, page 3266.

**PELLAGRA.****State Reports for October, 1916.**

| Place.                    | New cases reported. | Place.                   | New cases reported. |
|---------------------------|---------------------|--------------------------|---------------------|
| District of Columbia..... | 1                   | Massachusetts—Continued. |                     |
| Massachusetts:            |                     | Worcester County—        |                     |
| Hampton County—           |                     | Leominster Township..... | 1                   |
| Monson Township.....      | 1                   | Total.....               | 3                   |
| Suffolk County—           |                     |                          |                     |
| Boston.....               | 1                   |                          |                     |

**City Reports for Week Ended Nov. 4, 1916.**

| Place.                | Cases. | Deaths. | Place.                | Cases. | Deaths. |
|-----------------------|--------|---------|-----------------------|--------|---------|
| Birmingham, Ala.....  |        | 1       | Mobile, Ala.....      |        | 1       |
| Charleston, S. C..... |        | 1       | Richmond, Va.....     | 1      |         |
| Galveston, Tex.....   |        | 1       | Washington, D. C..... | 1      |         |

**PNEUMONIA.****City Reports for Week Ended Nov. 4, 1916.**

| Place.                  | Cases. | Deaths. | Place.                | Cases. | Deaths. |
|-------------------------|--------|---------|-----------------------|--------|---------|
| Allentown, Pa.....      | 1      |         | Newark, N. J.....     | 17     | 8       |
| Binghamton, N. Y.....   | 4      | 2       | Norfolk, Va.....      | 2      | 2       |
| Boston, Mass.....       | 24     | 12      | Pasadena, Cal.....    | 1      |         |
| Chicago, Ill.....       | 118    | 49      | Philadelphia, Pa..... | 44     | 30      |
| Cleveland, Ohio.....    | 20     | 19      | Pittsburgh, Pa.....   | 20     | 34      |
| Detroit, Mich.....      | 4      | 7       | Reading, Pa.....      | 2      | 1       |
| Grand Rapids, Mich..... | 5      | 1       | Rochester, N. Y.....  | 6      |         |
| Harrisburg, Pa.....     | 1      |         | St. Joseph, Mo.....   | 3      | 1       |
| Jackson, Mich.....      | 2      |         | Stockton, Cal.....    | 1      | 1       |
| Kansas City, Mo.....    | 5      | 7       | Toledo, Ohio.....     | 1      | 3       |
| Lancaster, Pa.....      | 1      |         | Topeka, Kans.....     | 2      |         |
| Los Angeles, Cal.....   | 3      | 2       | Wichita, Kans.....    | 1      | 1       |
| Nashville, Tenn.....    | 1      | 3       |                       |        |         |

**POLIOMYELITIS (INFANTILE PARALYSIS).**

**Cases Reported by States.**

The following tabular statement shows the number of cases of poliomyelitis reported to the United States Public Health Service by State health authorities during the periods shown:

|                              | Total cases reported. |                        | Total cases reported. |
|------------------------------|-----------------------|------------------------|-----------------------|
| <b>Alabama:</b>              |                       | <b>Iowa:</b>           |                       |
| July 1 to 31.....            | 77                    | July 1 to 31.....      | 30                    |
| Aug. 1 to 31.....            | 62                    | Aug. 1 to 31.....      | 82                    |
| Sept. 1 to 25.....           | 12                    | Sept. 1 to 30.....     | 66                    |
|                              | <b>151</b>            | Oct. 1 to Nov. 11..... | 42                    |
| <b>Arizona:</b>              |                       |                        | <b>220</b>            |
| July 1 to 31.....            | 2                     | <b>Kansas:</b>         |                       |
| Aug. 1 to 31.....            | 2                     | July 1 to 31.....      | 14                    |
| Sept. 1 to 25.....           | 2                     | Aug. 1 to 31.....      | 31                    |
|                              | <b>6</b>              | Sept. 1 to 30.....     | 19                    |
| <b>Arkansas:</b>             |                       | Oct. 1 to Nov. 4.....  | 23                    |
| July 1 to 31.....            | 5                     |                        | <b>87</b>             |
| Aug. 1 to 31.....            | 1                     | <b>Kentucky:</b>       |                       |
| Sept. 1 to 25.....           | 0                     | July 1 to 31.....      | 15                    |
|                              | <b>6</b>              | Aug. 1 to 31.....      | 19                    |
| <b>California:</b>           |                       | Sept. 1 to 28.....     | 1                     |
| July 1 to 31.....            | 12                    |                        | <b>35</b>             |
| Aug. 1 to 31.....            | 18                    | <b>Louisiana:</b>      |                       |
| Sept. 1 to 30.....           | 13                    | July 1 to 31.....      | 19                    |
| Oct. 1 to 31.....            | 21                    | Aug. 1 to 31.....      | 6                     |
| Nov. 1 to 18.....            | 15                    | Sept. 1 to 30.....     | 5                     |
|                              | <b>79</b>             | Oct. 1 to 31.....      | 3                     |
| <b>Colorado:</b>             |                       | Nov. 1 to 18.....      | 2                     |
| July 1 to 31.....            | 1                     |                        | <b>35</b>             |
| Aug. 1 to 31.....            | 2                     | <b>Maine:</b>          |                       |
| Sept. 1 to 30.....           | 4                     | July 1 to 31.....      | 0                     |
| Oct. 1 to Nov. 4.....        | 5                     | Aug. 1 to 31.....      | 26                    |
|                              | <b>12</b>             | Sept. 1 to 30.....     | 46                    |
| <b>Connecticut:</b>          |                       | Oct. 1 to Nov. 18..... | 46                    |
| July 1 to 31.....            | 165                   |                        | <b>118</b>            |
| Aug. 1 to 31.....            | 367                   | <b>Maryland:</b>       |                       |
| Sept. 1 to 30.....           | 274                   | July 1 to 31.....      | 10                    |
| Oct. 1 to 31.....            | 191                   | Aug. 1 to 31.....      | 64                    |
| Nov. 1 to 11.....            | 16                    | Sept. 1 to 30.....     | 100                   |
|                              | <b>913</b>            | Oct. 1 to 31.....      | 120                   |
| <b>Delaware:</b>             |                       | Nov. 1 to 20.....      | 32                    |
| July 1 to 31.....            | 1                     |                        | <b>326</b>            |
| Aug. 1 to 31.....            | 11                    | <b>Massachusetts:</b>  |                       |
| Sept. 1 to 30.....           | 36                    | July 1 to 31.....      | 107                   |
| Oct. 1 to Nov. 18.....       | 25                    | Aug. 1 to 31.....      | 252                   |
|                              | <b>73</b>             | Sept. 1 to 30.....     | 623                   |
| <b>District of Columbia:</b> |                       | Oct. 1 to 31.....      | 1702                  |
| July 1 to 31.....            | 8                     | Nov. 1 to 23.....      | 162                   |
| Aug. 1 to 31.....            | 18                    |                        | <b>1,846</b>          |
| Sept. 1 to 30.....           | 6                     | <b>Michigan:</b>       |                       |
| Oct. 1 to 31.....            | 4                     | July 1 to 31.....      | 51                    |
|                              | <b>36</b>             | Aug. 1 to 31.....      | 163                   |
| <b>Florida:</b>              |                       | Sept. 1 to 30.....     | 166                   |
| July 1 to 31.....            | 4                     | Oct. 1 to 31.....      | 97                    |
| Aug. 1 to 31.....            | 3                     | Nov. 12 to 18.....     | 8                     |
| Sept. 1 to 25.....           | 1                     |                        | <b>485</b>            |
|                              | <b>8</b>              | <b>Minnesota:</b>      |                       |
| <b>Georgia:</b>              | (*)                   | July 1 to 31.....      | 142                   |
| <b>Idaho:</b>                |                       | Aug. 1 to 31.....      | 1377                  |
| Aug. 1 to 31.....            | 4                     | Sept. 1 to 30.....     | 1199                  |
| Sept. 1 to 30.....           | 3                     | Oct. 1 to 31.....      | 148                   |
| Oct. 1 to 31.....            | 2                     | Nov. 1 to 18.....      | 31                    |
| Nov. 1 to 10.....            | 1                     |                        | <b>897</b>            |
|                              | <b>10</b>             | <b>Mississippi:</b>    |                       |
| <b>Illinois:</b>             |                       | July 1 to 31.....      | 57                    |
| July 1 to 31.....            | 76                    | Aug. 1 to 31.....      | 31                    |
| Aug. 1 to 31.....            | 339                   | Sept. 1 to 30.....     | 14                    |
| Sept. 1 to 30.....           | 257                   | Oct. 1 to 31.....      | 10                    |
| Oct. 1 to Nov. 18.....       | 143                   |                        | <b>112</b>            |
|                              | <b>815</b>            | <b>Missouri:</b>       |                       |
| <b>Indiana:</b>              |                       | July 1 to 31.....      | 4                     |
| July 1 to 31.....            | 27                    | Aug. 1 to 31.....      | 3                     |
| Aug. 1 to 31.....            | 38                    | Sept. 1 to 25.....     | 4                     |
| Sept. 1 to 30.....           | 67                    |                        | <b>11</b>             |
| Oct. 1 to Nov. 4.....        | 45                    |                        |                       |
|                              | <b>177</b>            |                        |                       |

<sup>1</sup> Corrected figures. Later report than figures previously published.  
<sup>2</sup> Disease present, but the number of cases is not known.

## POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

## Cases Reported by States—Continued.

|   | Total cases reported. |                        | Total cases reported. |
|---|-----------------------|------------------------|-----------------------|
| <b>Montana:</b>                               |                       | <b>Rhode Island:</b>   |                       |
| July 1 to 31.....                             | 11                    | July 1 to 31.....      | 26                    |
| Aug. 1 to 31.....                             | 28                    | Aug. 1 to 31.....      | 57                    |
| Sept. 1 to 30.....                            | 33                    | Sept. 1 to 30.....     | 70                    |
| Oct. 1 to Nov. 18.....                        | 13                    | Oct. 1 to Nov. 18..... | 65                    |
|   | 185                   |                        | 218                   |
| <b>Nebraska:</b>                              |                       | <b>South Carolina:</b> |                       |
| July 1 to 31.....                             | 1                     | July 1 to 31.....      | 20                    |
| Aug. 1 to 31.....                             | 7                     | Aug. 1 to 31.....      | 58                    |
| Sept. 1 to 28.....                            | 6                     | Sept. 1 to 30.....     | 24                    |
|   | 14                    | Oct. 1 to 31.....      | 13                    |
| <b>Nevada:</b>                                |                       |                        | 115                   |
| July 1 to Sept. 24.....                       | 0                     | <b>South Dakota:</b>   |                       |
| <b>New Hampshire:</b>                         |                       | July 1 to 31.....      | 5                     |
| July 1 to 31.....                             | 7                     | Aug. 1 to 31.....      | 19                    |
| Aug. 1 to 31.....                             | 16                    | Sept. 1 to 25.....     | 14                    |
| Sept. 1 to 30.....                            | 31                    |                        | 38                    |
| Oct. 1 to 19.....                             | 3                     | <b>Tennessee:</b>      |                       |
|   | 57                    | July 1 to 31.....      | 18                    |
| <b>New Jersey:</b>                            |                       | Aug. 1 to 31.....      | 21                    |
| July 1 to 31.....                             | 640                   | Sept. 1 to 25.....     | 0                     |
| Aug. 1 to 31.....                             | 2,114                 |                        | 39                    |
| Sept. 1 to 30.....                            | 957                   | <b>Texas:</b>          |                       |
| Oct. 1 to 31.....                             | 254                   | July 1 to 31.....      | 22                    |
| Nov. 1 to 4.....                              | 3                     | Aug. 1 to 31.....      | 25                    |
|   | 3,968                 | Sept. 1 to 30.....     | 16                    |
| <b>New Mexico:</b>                            |                       |                        | 63                    |
| July 1 to Sept. 25.....                       | 0                     | <b>Utah:</b>           |                       |
| <b>New York (exclusive of New York City):</b> |                       | Aug. 1 to 31.....      | 5                     |
| July 1 to 31.....                             | 517                   | <b>Vermont:</b>        |                       |
| Aug. 1 to 31.....                             | 1,527                 | July 1 to 31.....      | 1                     |
| Sept. 1 to 30.....                            | 1,064                 | Aug. 1 to 31.....      | 8                     |
| Oct. 3 to 16.....                             | 238                   | Sept. 1 to 30.....     | 23                    |
|   | 3,346                 | Oct. 1 to 31.....      | 19                    |
| <b>North Carolina:</b>                        | (3)                   |                        | 51                    |
| <b>North Dakota:</b>                          |                       | <b>Virginia:</b>       |                       |
| July 1 to 31.....                             | 0                     | July 1 to 31.....      | 24                    |
| Aug. 1 to 31.....                             | 2                     | Aug. 1 to 31.....      | 44                    |
| Sept. 1 to 30.....                            | 16                    | Sept. 1 to 30.....     | 64                    |
|   | 18                    | Oct. 1 to 21.....      | 22                    |
| <b>Ohio:</b>                                  |                       |                        | 154                   |
| July 1 to 31.....                             | 94                    | <b>Washington:</b>     |                       |
| Aug. 1 to 31.....                             | 168                   | July 1 to 31.....      | 5                     |
| Sept. 1 to 30.....                            | 138                   | Aug. 1 to 31.....      | 2                     |
|   | 400                   | Sept. 1 to 30.....     | 10                    |
| <b>Oklahoma:</b>                              |                       | Oct. 1 to Nov. 18..... | 6                     |
| July 1 to 31.....                             | 12                    |                        | 23                    |
| Aug. 1 to 31.....                             | 10                    | <b>West Virginia:</b>  |                       |
| Sept. 1 to Nov. 15.....                       | 13                    | July 1 to 31.....      | 5                     |
|   | 35                    | Aug. 1 to 31.....      | 10                    |
| <b>Oregon:</b>                                |                       | Sept. 1 to 30.....     | 18                    |
| Sept. 1 to 30.....                            | 3                     | Oct. 1 to 31.....      | 18                    |
| Oct. 1 to 31.....                             | 28                    | Nov. 1 to 18.....      | 1                     |
| Nov. 1 to 4.....                              | 2                     |                        | 62                    |
|   | 33                    | <b>Wisconsin:</b>      |                       |
| <b>Pennsylvania:</b>                          |                       | July 1 to 31.....      | 20                    |
| July 1 to 31.....                             | 107                   | Aug. 1 to 31.....      | 173                   |
| Aug. 1 to 31.....                             | 711                   | Sept. 1 to 30.....     | 158                   |
| Sept. 1 to 30.....                            | 743                   | Oct. 1 to 31.....      | 84                    |
| Oct. 8 to 31.....                             | 250                   |                        | 435                   |
| Nov. 1 to 18.....                             | 55                    | <b>Wyoming:</b>        |                       |
|   | 1,866                 | July 1 to 31.....      | 0                     |
|   |                       | Aug. 1 to 31.....      | 1                     |
|   |                       | Sept. 1 to 30.....     | 3                     |
|   |                       |                        | 4                     |

<sup>1</sup> Not including cases on Crow Reservation.

<sup>2</sup> Corrected figures. Later report than figures previously published.

<sup>3</sup> Disease present, but the number of cases is not known.

## POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

City Reports—August 20 to November 18, 1916.

The following table shows the number of cases of poliomyelitis reported to the United States Public Health Service by the health departments of the cities which reported five or more cases in any one week:

| City.                   | Cases reported for week ended— |         |          |           |           |           |         |          |          |          |         |          |          |
|-------------------------|--------------------------------|---------|----------|-----------|-----------|-----------|---------|----------|----------|----------|---------|----------|----------|
|                         | Aug. 26.                       | Sept. 2 | Sept. 9. | Sept. 16. | Sept. 23. | Sept. 30. | Oct. 7. | Oct. 14. | Oct. 21. | Oct. 28. | Nov. 4. | Nov. 11. | Nov. 18. |
| Akron, Ohio.....        | 1                              | 3       | 5        | 5         | 1         | .....     | .....   | 2        | .....    | .....    | .....   | .....    | .....    |
| Baltimore, N. J.....    | 5                              | 5       | .....    | 2         | 2         | .....     | .....   | .....    | .....    | .....    | .....   | .....    | .....    |
| Baltimore, Md.....      | 9                              | 16      | 12       | 13        | 10        | 29        | 20      | 23       | 18       | 8        | 11      | 3        | 5        |
| Bayonne, N. J.....      | 4                              | 1       | 5        | 1         | .....     | .....     | .....   | .....    | .....    | .....    | .....   | .....    | .....    |
| Boston, Mass.....       | 8                              | 13      | 22       | 38        | 55        | 52        | 77      | 54       | 53       | 36       | 24      | 15       | 7        |
| Bridgeport, Conn.....   | 3                              | 3       | .....    | 7         | 2         | 2         | 3       | .....    | .....    | .....    | .....   | 2        | .....    |
| Brookline, Mass.....    | .....                          | .....   | 1        | 2         | 1         | .....     | 1       | 5        | 5        | .....    | 1       | 1        | .....    |
| Cambridge, Mass.....    | 2                              | 1       | 2        | 5         | 4         | 5         | 11      | 6        | 11       | 4        | 7       | .....    | 1        |
| Camden, N. J.....       | 6                              | 9       | 5        | 7         | 2         | 1         | 3       | .....    | .....    | .....    | .....   | .....    | .....    |
| Chicago, Ill.....       | 22                             | 24      | 25       | 21        | 20        | 13        | 10      | 8        | 8        | 6        | 4       | .....    | 1        |
| Cincinnati, Ohio.....   | 5                              | 2       | 3        | 6         | 3         | 4         | 5       | 1        | 2        | 1        | 3       | .....    | .....    |
| Cleveland, Ohio.....    | 2                              | 5       | 2        | 3         | 1         | 1         | 2       | .....    | .....    | .....    | 1       | .....    | .....    |
| Detroit, Mich.....      | 6                              | 1       | 4        | 3         | 3         | 11        | 3       | 1        | 2        | .....    | .....   | .....    | .....    |
| East Orange, N. J.....  | 10                             | 6       | 10       | 3         | 2         | 2         | .....   | .....    | .....    | 1        | .....   | 1        | .....    |
| Flint, Mich.....        | 8                              | .....   | 4        | .....     | 4         | 4         | .....   | 2        | 1        | 4        | .....   | .....    | .....    |
| Grand Rapids, Mich..... | 1                              | 1       | 2        | 1         | 6         | 1         | .....   | 1        | 1        | 1        | .....   | 1        | 1        |
| Harrison, N. J.....     | 6                              | .....   | .....    | .....     | .....     | .....     | .....   | .....    | .....    | .....    | .....   | .....    | .....    |
| Hartford, Conn.....     | 4                              | 6       | 7        | 5         | 5         | 4         | 4       | .....    | 3        | 4        | 1       | 3        | .....    |
| Haverhill, Mass.....    | 5                              | .....   | .....    | 1         | 1         | 2         | .....   | .....    | .....    | 1        | .....   | .....    | .....    |
| Indianapolis, Ind.....  | .....                          | .....   | 5        | 4         | 2         | 4         | 1       | .....    | 1        | .....    | .....   | 1        | .....    |
| Jersey City, N. J.....  | 16                             | 22      | 9        | 6         | 8         | 11        | 2       | 5        | 2        | .....    | .....   | .....    | .....    |
| Kearny, N. J.....       | 5                              | .....   | .....    | 3         | .....     | .....     | .....   | .....    | .....    | .....    | .....   | .....    | .....    |
| Long Branch, N. J.....  | 2                              | 8       | .....    | 4         | 1         | 1         | .....   | .....    | .....    | .....    | .....   | .....    | .....    |
| Lynn, Mass.....         | 1                              | 2       | 2        | .....     | 1         | 2         | 3       | 6        | 8        | 6        | 3       | 4        | 1        |
| Malden, Mass.....       | .....                          | .....   | 2        | 2         | 6         | 10        | 3       | 4        | 4        | 6        | 2       | 4        | .....    |
| Manchester, N. H.....   | .....                          | 3       | 5        | 1         | 5         | .....     | .....   | .....    | .....    | .....    | .....   | .....    | 1        |
| Minneapolis, Minn.....  | 14                             | 12      | 4        | 5         | .....     | 3         | .....   | 2        | 1        | 2        | .....   | .....    | .....    |
| Montclair, N. J.....    | 2                              | 1       | 2        | 1         | .....     | 4         | 1       | 1        | 4        | 1        | 1       | 1        | .....    |
| Newark, N. J.....       | 150                            | 89      | 45       | 38        | 30        | 12        | 17      | 9        | .....    | 1        | 1       | 3        | .....    |
| Newburyport, Mass.....  | 1                              | 2       | 5        | 1         | 7         | 2         | 1       | 3        | .....    | .....    | .....   | .....    | .....    |
| New Haven, Conn.....    | 8                              | 6       | 4        | 7         | 1         | 1         | .....   | 1        | .....    | .....    | 1       | 1        | .....    |
| New York, N. Y.....     | 707                            | 441     | 352      | 252       | 156       | 142       | 96      | 72       | 43       | 37       | 19      | 14       | 4        |
| North Adams, Mass.....  | 5                              | 2       | 2        | 1         | 4         | 1         | .....   | .....    | .....    | .....    | .....   | .....    | .....    |
| Northampton, Mass.....  | 2                              | 1       | 1        | .....     | 1         | .....     | 1       | 1        | 4        | 1        | 1       | 1        | 1        |
| Orange, N. J.....       | 10                             | 15      | 4        | 1         | 2         | 1         | .....   | .....    | .....    | .....    | .....   | .....    | .....    |
| Perth Amboy, N. J.....  | 3                              | 1       | 3        | 2         | .....     | .....     | .....   | .....    | .....    | .....    | .....   | .....    | .....    |
| Philadelphia, Pa.....   | 132                            | 120     | 125      | 85        | 70        | 47        | 59      | 27       | 26       | 24       | 7       | 8        | 6        |
| Pittsburgh, Pa.....     | 3                              | 5       | 5        | 2         | 1         | 1         | 1       | 1        | 1        | 1        | .....   | 1        | .....    |
| Pittsfield, Mass.....   | 7                              | 2       | 10       | 8         | 6         | 4         | 4       | 5        | 8        | 4        | .....   | .....    | .....    |
| Plainfield, N. J.....   | 10                             | 1       | 6        | 4         | 2         | 3         | 1       | 3        | .....    | .....    | .....   | .....    | .....    |
| Portland, Ore.....      | .....                          | .....   | 1        | 1         | 1         | 1         | 3       | 4        | 5        | 1        | 1       | 1        | .....    |
| Providence, R. I.....   | 2                              | 10      | 7        | 10        | 17        | 9         | 9       | 7        | 3        | 9        | 8       | 3        | 5        |
| Quincy, Mass.....       | .....                          | .....   | .....    | 4         | 5         | 4         | .....   | .....    | .....    | .....    | .....   | .....    | .....    |
| St. Louis, Mo.....      | 5                              | 2       | .....    | .....     | .....     | .....     | .....   | .....    | .....    | .....    | .....   | .....    | .....    |
| St. Paul, Minn.....     | 6                              | 8       | 7        | 2         | 3         | 2         | 4       | .....    | 1        | .....    | 1       | .....    | .....    |
| Somerville, Mass.....   | 1                              | 2       | 1        | 7         | 1         | .....     | 5       | 3        | 4        | 5        | 3       | 2        | 3        |
| Springfield, Mass.....  | 5                              | 5       | 9        | 12        | 8         | 9         | 5       | 3        | 4        | 2        | 3       | 4        | 5        |
| Syracuse, N. Y.....     | 34                             | 33      | 49       | 29        | 20        | 12        | 11      | 5        | .....    | 4        | .....   | 2        | .....    |
| Toledo, Ohio.....       | 10                             | 7       | 11       | 1         | 2         | 3         | 1       | 2        | 1        | 1        | 1       | .....    | .....    |
| Trenton, N. J.....      | 11                             | 7       | 11       | 14        | 23        | 34        | 20      | 8        | 12       | 4        | 1       | 1        | .....    |
| Waltham, Mass.....      | .....                          | .....   | .....    | 2         | .....     | .....     | 8       | 2        | 9        | 2        | 2       | .....    | 1        |
| Washington, D. C.....   | 7                              | 2       | 4        | .....     | 1         | 1         | 4       | .....    | .....    | .....    | .....   | .....    | .....    |
| West Hoboken, N. J..... | 7                              | .....   | .....    | .....     | .....     | .....     | .....   | .....    | .....    | .....    | .....   | .....    | .....    |
| Wilmington, Del.....    | 3                              | 3       | 3        | 2         | 3         | 8         | 7       | 6        | 3        | 5        | 1       | 1        | .....    |

## New York City.

Surg. Lavinder reported that cases of poliomyelitis had been notified in New York City as follows: November 15, no case; November 16, 1; November 17, no case; November 18, 1; November 19, 2; November 20, no case; November 21, no case.

## POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

## State Reports for October, 1916.

| Place.                        | New cases reported. | Place.                          | New cases reported. |
|-------------------------------|---------------------|---------------------------------|---------------------|
| District of Columbia.....     | 4                   | Massachusetts—Continued.        |                     |
| Maryland:                     |                     | Essex County—Continued.         |                     |
| Baltimore City.....           | 74                  | Saisbury Township.....          | 1                   |
| Allegany County—              |                     | Saugus Township.....            | 4                   |
| Cumberland.....               | 3                   | Swampscott Township.....        | 3                   |
| Cumberland, R. F. D.....      | 1                   | Wenham Township.....            | 1                   |
| Anne Arundel County—          |                     | West Newbury Township.....      | 7                   |
| Brooklyn.....                 | 2                   | Franklin County—                |                     |
| Baltimore County—             |                     | Conway Township.....            | 4                   |
| Texas.....                    | 2                   | Deerfield Township.....         | 1                   |
| Rossville.....                | 1                   | Montague Township.....          | 1                   |
| Lutherville, R. F. D.....     | 1                   | Warwick Township.....           | 1                   |
| Glyndon.....                  | 1                   | Whately Township.....           | 1                   |
| Arlington.....                | 2                   | Hampden County—                 |                     |
| Highlandtown.....             | 2                   | Chicopee.....                   | 4                   |
| Sparrows Point.....           | 1                   | Holyoke.....                    | 35                  |
| Rosedale.....                 | 1                   | Longmeadow Township.....        | 1                   |
| Middle River.....             | 1                   | Monson Township.....            | 5                   |
| Mount Washington.....         | 1                   | Springfield.....                | 14                  |
| Eccleston.....                | 1                   | West Springfield Township... .. | 1                   |
| Relay.....                    | 1                   | Wilbraham Township.....         | 2                   |
| Ashland.....                  | 1                   | Hampshire County—               |                     |
| Caroline County—              |                     | Amherst Township.....           | 1                   |
| Henderson.....                | 1                   | Belchertown Township.....       | 2                   |
| Carroll County—               |                     | Hatfield Township.....          | 2                   |
| Westminster.....              | 1                   | Northampton.....                | 5                   |
| Eldersburg, R. F. D.....      | 1                   | South Hadley Township.....      | 5                   |
| Garrett County—               |                     | Middlesex County—               |                     |
| McHenry, R. F. D.....         | 3                   | Arlington Township.....         | 1                   |
| Accident, R. F. D.....        | 2                   | Belmont Township.....           | 2                   |
| Thayerville.....              | 1                   | Cambridge.....                  | 36                  |
| Friendsville, R. F. D.....    | 1                   | Everett.....                    | 15                  |
| Jennings, R. F. D.....        | 1                   | Framingham Township.....        | 3                   |
| Deer Park, R. F. D.....       | 1                   | Hopkinton Township.....         | 2                   |
| Accident.....                 | 5                   | Hudson Township.....            | 1                   |
| New Germany, R. F. D.....     | 2                   | Lexington Township.....         | 2                   |
| Bittinger, R. F. D.....       | 1                   | Lowell.....                     | 4                   |
| Thayerville, R. F. D.....     | 1                   | Malden.....                     | 17                  |
| Talbot County—                |                     | Medford.....                    | 6                   |
| Kirkham.....                  | 1                   | Melrose.....                    | 14                  |
| Washington County—            |                     | Natick Township.....            | 1                   |
| Hagerstown.....               | 1                   | Newton.....                     | 5                   |
| Hagerstown, R. F. D.....      | 1                   | North Reading Township.....     | 1                   |
| Total.....                    | 120                 | Reading Township.....           | 1                   |
| Massachusetts:                |                     | Somerville.....                 | 17                  |
| Barnstable County—            |                     | Stoneham Township.....          | 4                   |
| Dennis Township.....          | 1                   | Wakefield Township.....         | 7                   |
| Mashpee Township.....         | 1                   | Waltham.....                    | 21                  |
| Berkshire County—             |                     | Watertown Township.....         | 1                   |
| Adams Township.....           | 1                   | Wilmington Township.....        | 1                   |
| Cheshire Township.....        | 1                   | Winchester Township.....        | 3                   |
| Dalton Township.....          | 12                  | Woburn.....                     | 2                   |
| Egremont Township.....        | 1                   | Norfolk County—                 |                     |
| Pittsfield.....               | 22                  | Braintree Township.....         | 1                   |
| Bristol County—               |                     | Brookline Township.....         | 13                  |
| Attleborough.....             | 1                   | Canton Township.....            | 1                   |
| Dartmouth Township.....       | 1                   | Dedham Township.....            | 10                  |
| New Bedford.....              | 1                   | Holbrook Township.....          | 1                   |
| North Attleboro Township..... | 2                   | Milton Township.....            | 2                   |
| Swansea Township.....         | 1                   | Quincy.....                     | 45                  |
| Easton Township.....          | 2                   | Walpole Township.....           | 5                   |
| Essex County—                 |                     | Westwood Township.....          | 1                   |
| Amesbury Township.....        | 3                   | Weymouth Township.....          | 2                   |
| Andover Township.....         | 1                   | Plymouth County—                |                     |
| Beverly.....                  | 9                   | Bridgewater Township.....       | 1                   |
| Gloucester.....               | 2                   | Halifax Township.....           | 1                   |
| Hamilton Township.....        | 2                   | Middleboro Township.....        | 1                   |
| Haverhill.....                | 1                   | Suffolk County—                 |                     |
| Ipswich Township.....         | 1                   | Boston.....                     | 229                 |
| Lawrence.....                 | 1                   | Chelsea.....                    | 1                   |
| Lynn.....                     | 25                  | Revere.....                     | 2                   |
| Manchester Township.....      | 1                   | Winthrop Township.....          | 2                   |
| Nahant Township.....          | 2                   | Worcester County—               |                     |
| Newbury Township.....         | 1                   | Athol Township.....             | 3                   |
| Newburyport.....              | 6                   | Fitchburg.....                  | 3                   |
|                               |                     | Gardner Township.....           | 2                   |
|                               |                     | Grafton Township.....           | 1                   |
|                               |                     | Northboro Township.....         | 1                   |

**POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.**

**State Reports for October, 1916—Continued.**

| Place.                             | New cases reported. | Place.                           | New cases reported. |
|------------------------------------|---------------------|----------------------------------|---------------------|
| <b>Massachusetts—Continued.</b>    |                     | <b>Vermont—Continued.</b>        |                     |
| <b>Worcester County—Continued.</b> |                     | <b>Rutland County—Continued.</b> |                     |
| Northbridge Township.....          | 1                   | Poultney.....                    | 1                   |
| Oxford Township.....               | 1                   | Tinmouth.....                    | 1                   |
| Templeton Township.....            | 1                   | Rutland City.....                | 1                   |
| Webster Township.....              | 1                   | <b>Washington County—</b>        |                     |
| Worcester.....                     | 2                   | Worcester.....                   | 1                   |
| <b>Total.....</b>                  | <b>704</b>          | <b>Windsor County—</b>           |                     |
|                                    |                     | Woodstock.....                   | 1                   |
|                                    |                     | <b>Total.....</b>                | <b>19</b>           |
| <b>New Jersey:</b>                 |                     | <b>Wisconsin:</b>                |                     |
| Atlantic.....                      | 1                   | Brown County.....                | 4                   |
| Bergen.....                        | 14                  | Buffalo County.....              | 7                   |
| Burlington.....                    | 3                   | Chippewa County.....             | 1                   |
| Camden.....                        | 8                   | Clark County.....                | 1                   |
| Cape May.....                      | 4                   | Dane County.....                 | 6                   |
| Cumberland.....                    | 14                  | Dodge County.....                | 1                   |
| Essex.....                         | 54                  | Door County.....                 | 1                   |
| Gloucester.....                    | 5                   | Dunn County.....                 | 5                   |
| Hudson.....                        | 11                  | Eau Claire County.....           | 3                   |
| Hunterdon.....                     | 5                   | Fond du Lac County.....          | 2                   |
| Mercer.....                        | 55                  | Forest County.....               | 1                   |
| Middlesex.....                     | 4                   | Jackson County.....              | 5                   |
| Monmouth.....                      | 11                  | Juneau County.....               | 3                   |
| Morris.....                        | 11                  | Kenosha County.....              | 1                   |
| Passaic.....                       | 14                  | La Crosse County.....            | 1                   |
| Salem.....                         | 11                  | Langlade County.....             | 1                   |
| Somerset.....                      | 3                   | Marathon County.....             | 3                   |
| Sussex.....                        | 6                   | Milwaukee County.....            | 3                   |
| Union.....                         | 12                  | Monroe County.....               | 1                   |
| Warren.....                        |                     | Outagamie County.....            | 2                   |
| <b>Total.....</b>                  | <b>254</b>          | Polk County.....                 | 2                   |
|                                    |                     | Portage County.....              | 1                   |
|                                    |                     | Racine County.....               | 2                   |
|                                    |                     | Shawano County.....              | 2                   |
|                                    |                     | Sheboygan County.....            | 3                   |
|                                    |                     | Taylor County.....               | 1                   |
|                                    |                     | Trempealeau County.....          | 4                   |
|                                    |                     | Vernon County.....               | 1                   |
|                                    |                     | Walworth County.....             | 10                  |
|                                    |                     | Washington County.....           | 1                   |
|                                    |                     | Waukesha County.....             | 1                   |
|                                    |                     | Waupaca County.....              | 1                   |
|                                    |                     | Winnebago County.....            | 2                   |
|                                    |                     | Wood County.....                 | 1                   |
|                                    |                     | <b>Total.....</b>                | <b>84</b>           |
| <b>Vermont:</b>                    |                     |                                  |                     |
| <b>Bennington County—</b>          |                     |                                  |                     |
| Pownal.....                        | 1                   |                                  |                     |
| <b>Chittenden County—</b>          |                     |                                  |                     |
| Burlington.....                    | 4                   |                                  |                     |
| Milton.....                        | 1                   |                                  |                     |
| <b>Franklin County—</b>            |                     |                                  |                     |
| Georgia.....                       | 1                   |                                  |                     |
| <b>Grand Isle County—</b>          |                     |                                  |                     |
| Grand Isle.....                    | 4                   |                                  |                     |
| South Hero.....                    | 1                   |                                  |                     |
| <b>Rutland County—</b>             |                     |                                  |                     |
| Brandon.....                       | 1                   |                                  |                     |
| Pawlet.....                        | 1                   |                                  |                     |

**City Reports for Week Ended Nov. 4, 1916.**

| Place.                  | Cases. | Deaths. | Place.                   | Cases. | Deaths. |
|-------------------------|--------|---------|--------------------------|--------|---------|
| Baltimore, Md.....      | 11     | 3       | New Britain, Conn.....   | 2      |         |
| Boston, Mass.....       | 24     | 8       | New Haven, Conn.....     | 1      |         |
| Brockton, Mass.....     | 1      |         | Newton, Mass.....        | 2      | 1       |
| Brookline, Mass.....    | 1      |         | New York, N. Y.....      | 19     | 14      |
| Cambridge, Mass.....    | 7      | 1       | Niagara Falls, N. Y..... | 1      |         |
| Chicago, Ill.....       | 4      | 1       | Northampton, Mass.....   | 1      |         |
| Cincinnati, Ohio.....   | 3      |         | Passaic, N. J.....       | 1      |         |
| Cleveland, Ohio.....    | 1      |         | Philadelphia, Pa.....    | 7      | 5       |
| Eric, Pa.....           | 1      |         | Pittsburgh, Pa.....      |        | 1       |
| Evansville, Ind.....    |        | 1       | Portland, Oreg.....      | 1      |         |
| Everett, Mass.....      | 4      |         | Portsmouth, Va.....      |        | 1       |
| Grand Rapids, Mich..... |        | 2       | Providence, R. I.....    | 8      |         |
| Hartford, Conn.....     | 1      | 1       | Quincy, Mass.....        |        | 1       |
| Jackson, Mich.....      | 2      |         | Richmond, Va.....        | 1      |         |
| Kalamazoo, Mich.....    | 1      |         | Saginaw, Mich.....       | 1      |         |
| Lancaster, Pa.....      | 2      |         | St. Paul, Minn.....      | 1      |         |
| Lawrence, Mass.....     | 1      |         | Somerville, Mass.....    | 3      |         |
| Lowell, Mass.....       |        | 1       | Springfield, Mass.....   | 3      |         |
| Lynn, Mass.....         | 3      | 1       | Taunton, Mass.....       | 1      |         |
| Medford, Mass.....      | 3      |         | Toledo, Ohio.....        | 1      |         |
| Milwaukee, Wis.....     | 1      |         | Trenton, N. J.....       | 1      |         |
| Montclair, N. J.....    | 1      |         | Waltham, Mass.....       | 2      |         |
| Nashville, Tenn.....    | 1      |         | Wilmington, Del.....     | 1      |         |
| Newark, N. J.....       | 1      | 1       |                          |        |         |

## RABIES IN ANIMALS.

## City Reports for Week Ended Nov. 4, 1916.

During the week ended November 4, 1916, 1 case of rabies in animals was reported in Buffalo, N. Y., 1 case in Detroit, Mich., and 1 case in Toledo, Ohio.

## SCARLET FEVER.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 3266.

## SMALLPOX.

## Minnesota.

Collaborating Epidemiologist Bracken reported that during the week ended November 18, 1916, two new foci of smallpox infection were reported in Minnesota; one case having been notified in the city of Northfield, Rice County, and one in the village of Clontarf, Swift County.

## Massachusetts Report for October, 1916.

| Place.                         | New cases reported. | Deaths. | Vaccination history of cases.                      |  |                                       |  |
|--------------------------------|---------------------|---------|--|--|---------------------------------------|--|
|                                |                     |         | Number vaccinated within 7 years preceding attack. | Number last vaccinated more than 7 years preceding attack. | Number never successfully vaccinated. | Vaccination history not obtained or uncertain. |
| Massachusetts:                 |                     |         |  |  |                                       |  |
| Berkshire County—              |                     |         |  |  |                                       |  |
| Great Barrington Township..... | 3                   | .....   | .....  | .....  | 3                                     | .....  |
| Lee Township.....              | 6                   | .....   | .....  | .....  | 6                                     | .....  |
| Total.....                     | 9                   | .....   | .....  | .....  | 9                                     | .....  |

## Miscellaneous State Reports.

| Place.                 | Cases. | Deaths. | Place.                       | Cases. | Deaths. |
|------------------------|--------|---------|------------------------------|--------|---------|
| Wisconsin (Oct. 1-31): |        |         | Wisconsin (Oct. 1-31)—Contd. |        |         |
| Counties—              |        |         | Counties—Continued.          |        |         |
| Juneau.....            | 2      | .....   | Waupaca.....                 | 14     | .....   |
| Marquette.....         | 1      | .....   | Total.....                   | 24     | .....   |
| Shawano.....           | 7      | .....   |                              |        |         |

## City Reports for Week Ended Nov. 4, 1916.

| Place.                  | Cases. | Deaths. | Place.                | Cases. | Deaths. |
|-------------------------|--------|---------|-----------------------|--------|---------|
| Butte, Mont.....        | 3      | .....   | New Orleans, La.....  | 3      | .....   |
| Chicago, Ill.....       | 1      | .....   | Portland, Oreg.....   | 2      | .....   |
| Cleveland, Ohio.....    | 13     | .....   | St. Joseph, Mo.....   | 1      | .....   |
| Danville, Ill.....      | 11     | .....   | St. Louis, Mo.....    | 2      | .....   |
| El Paso, Tex.....       | 4      | .....   | Seattle, Wash.....    | 1      | .....   |
| Grand Rapids, Mich..... | 1      | .....   | Sioux City, Iowa..... | 2      | .....   |
| Kansas City, Mo.....    | 1      | .....   | Toledo, Ohio.....     | 2      | .....   |
| Muscatine, Iowa.....    | 1      | .....   |                       |        |         |

**TETANUS.**

**City Reports for Week Ended Nov. 4, 1916.**

| Place.                | Cases. | Deaths. | Place.                | Cases. | Deaths. |
|-----------------------|--------|---------|-----------------------|--------|---------|
| Canton, Ohio.....     |        | 1       | New York, N. Y.....   | 1      |         |
| Charleston, S. C..... |        | 1       | Philadelphia, Pa..... |        | 2       |
| Chicago, Ill.....     | 1      | 2       | Providence, R. I..... |        | 1       |
| Detroit, Mich.....    |        | 1       | Trenton, N. J.....    |        | 1       |
| New Orleans, La.....  |        | 1       |                       |        |         |

**TUBERCULOSIS.**

See Diphtheria, measles, scarlet fever, and tuberculosis, page 3266.

**TYPHOID FEVER.**

**State Reports for October, 1916.**

| Place.                     | New cases reported. | Place.                    | New cases reported. |
|----------------------------|---------------------|---------------------------|---------------------|
| District of Columbia.....  | 38                  | Maryland—Continued.       |                     |
| Maryland:                  |                     | Carroll County—           |                     |
| Baltimore City.....        | 96                  | Carrollton.....           | 1                   |
| Allegany County—           |                     | Westminster, R. F. D..... | 1                   |
| Ellerslie.....             | 1                   | Otterdale Mills.....      | 1                   |
| Frostburg.....             | 2                   | Westminster.....          | 2                   |
| Cumberland.....            | 9                   | Sykesville, R. F. D.....  | 2                   |
| McCoole.....               | 2                   | Finksburg, R. F. D.....   | 1                   |
| Eckhart.....               | 1                   | Cecil County—             |                     |
| Westernport.....           | 2                   | North East.....           | 1                   |
| McCoole, R. F. D.....      | 2                   | Elkton, R. F. D.....      | 1                   |
| Green Ridge.....           | 1                   | Port Deposit.....         | 1                   |
| Mount Savage Junction..... | 1                   | Elkton.....               | 1                   |
| Midland.....               | 1                   | Charles County—           |                     |
| Allegany Hospital.....     | 1                   | Benedict.....             | 1                   |
| Anne Arundel County—       |                     | Malcolm.....              | 1                   |
| Eastport.....              | 1                   | Faulkner, R. F. D.....    | 1                   |
| Annapolis Neck.....        | 3                   | Hughesville.....          | 1                   |
| Solley.....                | 1                   | Hill Top.....             | 2                   |
| Curtis Bay.....            | 1                   | Bryantown.....            | 2                   |
| Baltimore County—          |                     | Indianhead.....           | 2                   |
| Turners Station.....       | 1                   | Cross Roads, R. F. D..... | 1                   |
| Roland Park.....           | 1                   | Gallant Green.....        | 1                   |
| Mount Carmel.....          | 1                   | Waldorf.....              | 1                   |
| Canton.....                | 1                   | Dorchester County—        |                     |
| Catonsville.....           | 1                   | Cambridge.....            | 7                   |
| Chase.....                 | 1                   | Cambridge, R. F. D.....   | 1                   |
| Highlandtown.....          | 3                   | Hurlock, R. F. D.....     | 1                   |
| White Hall, R. F. D.....   | 2                   | Hurlock.....              | 2                   |
| Corbett.....               | 1                   | Hurleys Neck.....         | 1                   |
| Woodlawn.....              | 1                   | Fishing Creek.....        | 1                   |
| Glyndon.....               | 1                   | Secretary.....            | 1                   |
| Lauraville.....            | 2                   | Vienna.....               | 2                   |
| St. Helena.....            | 1                   | Williamsburg.....         | 6                   |
| St. George.....            | 1                   | Bucktown.....             | 1                   |
| Texas.....                 | 1                   | Hoopersville.....         | 1                   |
| Randallstown.....          | 1                   | Frederick County—         |                     |
| Relay, R. F. D.....        | 1                   | Frederick.....            | 2                   |
| Govans.....                | 1                   | Petersville, R. F. D..... | 2                   |
| Boring.....                | 1                   | Ijamsville, R. F. D.....  | 1                   |
| Calvert County—            |                     | New Windsor, R. F. D..... | 1                   |
| Sollers.....               | 1                   | Brunswick.....            | 3                   |
| Poplars.....               | 1                   | Mountandale, R. F. D..... | 1                   |
| Burnt.....                 | 1                   | New Midway, R. F. D.....  | 1                   |
| Caroline County—           |                     | Graceham, R. F. D.....    | 1                   |
| Ridgely, R. F. D.....      | 1                   | Ijamsville.....           | 1                   |
| Goldsboro.....             | 3                   | Garrett County—           |                     |
| Marydel, R. F. D.....      | 1                   | Cove.....                 | 1                   |
| Greensboro, R. F. D.....   | 3                   | McHenry.....              | 1                   |
| Goldsboro, R. F. D.....    | 4                   | Grantsville, R. F. D..... | 1                   |
| Federalsburg.....          | 3                   | Oakland.....              | 1                   |
| Preston, R. F. D.....      | 1                   | McHenry, R. F. D.....     | 1                   |
| Mission.....               | 2                   | Kitzmiller.....           | 1                   |
|                            |                     | Deer Park, R. F. D.....   | 1                   |

**TYPHOID FEVER—Continued.**  
**State Reports for October, 1916—Continued.**

| Place.                           | New cases reported. | Place.                           | New cases reported. |
|----------------------------------|---------------------|----------------------------------|---------------------|
| <b>Maryland—Continued.</b>       |                     | <b>Maryland—Continued.</b>       |                     |
| <b>Garrett County—Continued.</b> |                     | <b>Wicomico County—</b>          |                     |
| Barton, R. F. D. ....            | 1                   | Salisbury. ....                  | 4                   |
| Bond. ....                       | 1                   | Pittsville. ....                 | 2                   |
| <b>Harford County—</b>           |                     | Fruitland. ....                  | 2                   |
| Havre de Grace. ....             | 1                   | Hebron, R. F. D. ....            | 1                   |
| Belcamp. ....                    | 1                   | Sharptown, R. F. D. ....         | 1                   |
| Bel Air, R. F. D. ....           | 1                   | Hebron. ....                     | 2                   |
| Whiteford. ....                  | 1                   | Mardella. ....                   | 1                   |
| Fallston, R. F. D. ....          | 1                   | White Haven. ....                | 2                   |
| Havre de Grace Hospital. ....    | 1                   | Athol. ....                      | 1                   |
| <b>Howard County—</b>            |                     | Salisbury, R. F. D. ....         | 2                   |
| Elk Ridge, R. F. D. ....         | 1                   | Quantico. ....                   | 1                   |
| Highland. ....                   | 1                   | Jesterville. ....                | 3                   |
| Elk Ridge. ....                  | 1                   | Allen. ....                      | 1                   |
| <b>Kent County—</b>              |                     | Fruitland, R. F. D. ....         | 1                   |
| Rock Hall. ....                  | 2                   | Peninsula General Hospital. .... | 2                   |
| Betterton, R. F. D. ....         | 2                   | <b>Worcester County—</b>         |                     |
| Chestertown. ....                | 1                   | Pocomoke City. ....              | 1                   |
| Dutchtown. ....                  | 1                   | Pocomoke City, R. F. D. ....     | 1                   |
| <b>Montgomery County—</b>        |                     | <b>Total. ....</b>               |                     |
| Rockville. ....                  | 1                   | <b>367</b>                       |                     |
| Brookville, R. F. D. ....        | 1                   | <b>Massachusetts:</b>            |                     |
| <b>Prince Georges County—</b>    |                     | <b>Barnstable County—</b>        |                     |
| Suitland. ....                   | 3                   | Orleans Township. ....           | 1                   |
| T. B., R. F. D. ....             | 4                   | Provincetown Township. ....      | 1                   |
| Camp Springs. ....               | 3                   | <b>Berkshire County—</b>         |                     |
| Hyattsville. ....                | 1                   | Cheshire Township. ....          | 1                   |
| Rosaryville, R. F. D. ....       | 1                   | North Adams. ....                | 2                   |
| Bowie, R. F. D. ....             | 1                   | Pittsfield. ....                 | 2                   |
| Mount Rainier. ....              | 1                   | Savoy Township. ....             | 2                   |
| Fort Washington, R. F. D. ....   | 1                   | <b>Bristol County—</b>           |                     |
| Clinton, R. F. D. ....           | 1                   | Attleboro. ....                  | 3                   |
| Clinton. ....                    | 1                   | Fall River. ....                 | 29                  |
| Laurel. ....                     | 1                   | New Bedford. ....                | 8                   |
| <b>Queen Annes County—</b>       |                     | North Attleboro Township. ....   | 1                   |
| Queenstown. ....                 | 3                   | <b>Essex County—</b>             |                     |
| Stevensville. ....               | 3                   | Andover Township. ....           | 2                   |
| Hayden, R. F. D. ....            | 1                   | Beverly. ....                    | 3                   |
| Ingliside. ....                  | 1                   | Danvers Township. ....           | 1                   |
| Willoughby. ....                 | 1                   | Georgetown Township. ....        | 1                   |
| Sudlersville. ....               | 1                   | Haverhill. ....                  | 4                   |
| Winchester. ....                 | 1                   | Lawrence. ....                   | 5                   |
| Barclay. ....                    | 1                   | Lynn. ....                       | 15                  |
| Centreville. ....                | 1                   | Methuen Township. ....           | 1                   |
| <b>Somerset County—</b>          |                     | North Andover Township. ....     | 1                   |
| Upper Fairmount. ....            | 2                   | Peabody Township. ....           | 4                   |
| Chance. ....                     | 2                   | Saugus Township. ....            | 2                   |
| Crisfield. ....                  | 4                   | Wenham Township. ....            | 1                   |
| Marion Station. ....             | 1                   | Rowley Township. ....            | 2                   |
| Dames Quarter. ....              | 1                   | <b>Franklin County—</b>          |                     |
| Lawsonia. ....                   | 2                   | Monroe Township. ....            | 1                   |
| Marion. ....                     | 2                   | <b>Hampden County—</b>           |                     |
| Eden, R. F. D. ....              | 1                   | Springfield. ....                | 3                   |
| Deals Island. ....               | 1                   | Westfield Township. ....         | 2                   |
| Princess Anne. ....              | 1                   | <b>Hampshire County—</b>         |                     |
| Crisfield, R. F. D. ....         | 1                   | Northampton. ....                | 1                   |
| <b>Talbot County—</b>            |                     | <b>Middlesex County—</b>         |                     |
| Easton. ....                     | 2                   | Arlington Township. ....         | 1                   |
| Trappe. ....                     | 2                   | Burlington Township. ....        | 1                   |
| Trappe Station, R. F. D. ....    | 1                   | Cambridge. ....                  | 3                   |
| Oxford. ....                     | 1                   | Everett. ....                    | 1                   |
| St. Michaels. ....               | 1                   | Hudson Township. ....            | 1                   |
| Bruffs Island. ....              | 1                   | Lowell. ....                     | 4                   |
| Easton, R. F. D. ....            | 1                   | Malden. ....                     | 4                   |
| Ivytown. ....                    | 1                   | Medford. ....                    | 2                   |
| <b>Washington County—</b>        |                     | Melrose. ....                    | 5                   |
| Hagerstown. ....                 | 5                   | Natick Township. ....            | 1                   |
| Antietam. ....                   | 1                   | Somerville. ....                 | 1                   |
| Smithsburg. ....                 | 2                   | Wakefield Township. ....         | 1                   |
| Cascade. ....                    | 2                   | Watertown Township. ....         | 1                   |
| Hancock, R. F. D. ....           | 1                   | Winchester Township. ....        | 1                   |
| Sharpsburg. ....                 | 1                   | <b>Norfolk County—</b>           |                     |
| Williamsport. ....               | 2                   | Brookline Township. ....         | 1                   |
| Smithsburg, R. F. D. ....        | 2                   | Canton Township. ....            | 2                   |
| Hancock. ....                    | 1                   | Norwood Township. ....           | 1                   |
| Hagerstown, R. F. D. ....        | 2                   | <b>Plymouth County—</b>          |                     |
| Pectonville. ....                | 1                   | Broekton. ....                   | 3                   |
| Brownsville. ....                | 1                   | Kingston Township. ....          | 1                   |
| Dargan, R. F. D. ....            | 1                   | Lakeville Township. ....         | 1                   |
| Washington County Hospital. .... | 1                   |                                  |                     |

**TYPHOID FEVER—Continued.**

**State Reports for October, 1916—Continued.**

| Place.                      | New cases reported. | Place.                 | New cases reported. |
|-----------------------------|---------------------|------------------------|---------------------|
| Massachusetts—Continued.    |                     | Vermont:               |                     |
| Plymouth County—Continued.  |                     | Essex County.....      |                     |
| Middleborough Township..... | 1                   | Franklin County.....   | 1                   |
| Plymouth Township.....      | 2                   | Washington County..... | 1                   |
| Suffolk County—             |                     | Total.....             | 4                   |
| Boston.....                 | 19                  | Wisconsin:             |                     |
| Chelsea.....                | 4                   | Adams County.....      |                     |
| Revere.....                 | 1                   | Brown County.....      |                     |
| Worcester County—           |                     | Buffalo County.....    |                     |
| Athol Township.....         | 1                   | Chippewa County.....   |                     |
| Fitchburg.....              | 1                   | Columbia County.....   |                     |
| Gardner Township.....       | 6                   | Crawford County.....   |                     |
| Webster Township.....       | 3                   | Door County.....       |                     |
| Worcester.....              | 6                   | Douglas County.....    |                     |
| Uxbridge Township.....      | 1                   | Dunn County.....       |                     |
| Total.....                  | 180                 | Eau Claire County..... |                     |
| New Jersey:                 |                     | Kenosha County.....    |                     |
| Atlantic County.....        | 11                  | Kewaunee County.....   |                     |
| Bergen County.....          | 7                   | Manitowoc County.....  |                     |
| Burlington County.....      | 4                   | Marathon County.....   |                     |
| Camden County.....          | 14                  | Marinette County.....  |                     |
| Cumberland County.....      | 9                   | Milwaukee County.....  |                     |
| Essex County.....           | 29                  | Oneida County.....     |                     |
| Gloucester County.....      | 1                   | Portage County.....    |                     |
| Hudson County.....          | 27                  | Racine County.....     |                     |
| Mercer County.....          | 8                   | Richland County.....   |                     |
| Middlesex County.....       | 7                   | Rock County.....       |                     |
| Monmouth County.....        | 8                   | Rusk County.....       |                     |
| Ocean County.....           | 5                   | Sheboygan County.....  |                     |
| Passaic County.....         | 3                   | Taylor County.....     |                     |
| Salem County.....           | 7                   | Washburn County.....   |                     |
| Somerset County.....        | 3                   | Waupaca County.....    |                     |
| Sussex County.....          | 1                   | Wood County.....       |                     |
| Union County.....           | 7                   | Total.....             | 77                  |
| Warren County.....          | 1                   |                        |                     |
| Total.....                  | 152                 |                        |                     |

**City Reports for Week Ended Nov. 4, 1916.**

| Place.                   | Cases. | Deaths. | Place.                   | Cases. | Deaths. |
|--------------------------|--------|---------|--------------------------|--------|---------|
| Akron, Ohio.....         | 1      |         | Grand Rapids, Mich.....  | 1      |         |
| Alameda, Cal.....        | 2      |         | Harrisburg, Pa.....      | 13     | 4       |
| Atlantic City, N. J..... | 2      |         | Hartford, Conn.....      | 1      |         |
| Auburn, N. Y.....        | 2      | 1       | Haverhill, Mass.....     |        | 1       |
| Baltimore, Md.....       | 20     | 6       | Hoboken, N. J.....       | 3      |         |
| Birmingham, Ala.....     | 5      |         | Indianapolis, Ind.....   | 11     |         |
| Braddock, Pa.....        | 1      |         | Jackson, Mich.....       | 1      |         |
| Bridgeport, Conn.....    | 1      |         | Johnstown, Pa.....       | 4      | 1       |
| Brockton, Mass.....      | 2      |         | Kalamazoo, Mich.....     | 2      |         |
| Buffalo, N. Y.....       | 6      |         | Kansas City, Mo.....     | 1      | 1       |
| Cambridge, Mass.....     | 1      |         | Kokomo, Ind.....         | 2      |         |
| Charleston, S. C.....    | 1      |         | Lancaster, Pa.....       | 1      |         |
| Chicago, Ill.....        | 24     |         | Lawrence, Mass.....      | 2      |         |
| Cincinnati, Ohio.....    | 2      | 1       | Lexington, Ky.....       |        | 1       |
| Cleveland, Ohio.....     | 3      | 2       | Lima, Ohio.....          | 1      |         |
| Coffeyville, Kans.....   | 4      |         | Lincoln, Nebr.....       | 3      |         |
| Columbus, Ohio.....      | 3      |         | Little Rock, Ark.....    | 1      |         |
| Concord, N. H.....       | 1      | 1       | Los Angeles, Cal.....    | 5      |         |
| Covington, Ky.....       | 2      | 1       | Lynchburg, Va.....       | 2      | 1       |
| Cumberland, Md.....      | 1      |         | Lynn, Mass.....          | 3      |         |
| Danville, Ill.....       |        | 2       | Marinette, Wis.....      | 1      |         |
| Denver, Colo.....        | 2      |         | Milwaukee, Wis.....      | 3      |         |
| Detroit, Mich.....       | 9      | 1       | Minneapolis, Minn.....   | 5      |         |
| Duluth, Minn.....        | 2      |         | Nashville, Tenn.....     | 6      |         |
| Fast Orange, N. J.....   | 1      |         | Newark, N. J.....        | 5      |         |
| El Paso, Tex.....        | 2      | 1       | New Bedford, Mass.....   | 2      |         |
| Evansville, Ind.....     | 1      | 1       | New Castle, Pa.....      | 2      |         |
| Everett, Mass.....       | 1      |         | New Orleans, La.....     | 22     | 6       |
| Everett, Wash.....       | 2      |         | New York, N. Y.....      | 32     | 4       |
| Fall River, Mass.....    | 2      |         | Niagara Falls, N. Y..... |        | 1       |
| Galveston, Tex.....      | 2      |         | Norfolk, Va.....         | 1      |         |

## TYPHOID FEVER—Continued.

## City Reports for Week Ended Nov. 4, 1916—Continued.

| Place.                 | Cases. | Deaths. | Place.                 | Cases. | Deaths. |
|------------------------|--------|---------|------------------------|--------|---------|
| Norristown, Pa.....    | 3      | 1       | Somerville, Mass.....  | 1      | .....   |
| Ogden, Utah.....       | 1      | .....   | South Bend, Ind.....   | 1      | .....   |
| Oklahoma, Okla.....    | 1      | .....   | Springfield, Ohio..... | 3      | 3       |
| Omaha, Nebr.....       | 2      | .....   | Steelton, Pa.....      | 2      | .....   |
| Perth Amboy, N. J..... | 1      | .....   | Toledo, Ohio.....      | 2      | 1       |
| Philadelphia, Pa.....  | 13     | 3       | Topeka, Kans.....      | 6      | 1       |
| Pittsburgh, Pa.....    | 4      | 1       | Trenton, N. J.....     | 1      | .....   |
| Portland, Me.....      | 6      | .....   | Waltham, Mass.....     | 1      | 1       |
| Providence, R. I.....  | 3      | 1       | Washington, D. C.....  | 5      | 1       |
| Reading, Pa.....       | 5      | .....   | Wheeling, W. Va.....   | 3      | .....   |
| Richmond, Va.....      | 3      | .....   | Wilkes-Barre, Pa.....  | 2      | .....   |
| Roanoke, Va.....       | 4      | .....   | Wilmington, Del.....   | 1      | .....   |
| Sacramento, Cal.....   | 2      | .....   | Worcester, Mass.....   | 1      | .....   |
| St. Louis, Mo.....     | 18     | .....   | York, Pa.....          | 1      | .....   |
| St. Paul, Minn.....    | 1      | .....   | Zanesville, Ohio.....  | 1      | .....   |

## TYPHUS FEVER.

## Iowa—Fort Madison.

The secretary of the State Board of Health of Iowa reported by telegraph November 16, 1916, that 5 cases of typhus fever had been notified at Fort Madison, Iowa.

## Kansas—Topeka.

The State Board of Health of Kansas reported the occurrence of 2 cases of typhus fever at Topeka, Kans., as follows: On October 30, 1916, a female nurse in the Santa Fe Railroad Hospital at Topeka was taken ill and petechial eruptions appeared on the ninth day of illness, the case terminating by crisis on the seventeenth day of illness. The second case occurred in a Mexican who was found suffering from the disease November 15, 1916.

## City Report for Week Ended Nov. 4, 1916.

During the week ended November 4, 1916, one case of typhus fever was reported at El Paso, Tex.

## COMMUNICABLE DISEASES.

## Massachusetts Report for Week Ended November 11, 1916.

|  | Cases reported. |                                 | Cases reported. |
|--|-----------------|---------------------------------|-----------------|
| Poliomyelitis (infantile paralysis)..... | 60              | Trichinosis.....                | 2               |
| Chicken pox.....                         | 55              | Tuberculosis (pulmonary).....   | 116             |
| Diphtheria.....                          | 135             | Tuberculosis (other forms)..... | 10              |
| German measles.....                      | 4               | Smallpox.....                   | 4               |
| Measles.....                             | 125             | Typhoid fever.....              | 37              |
| Mumps.....                               | 34              | Whooping cough.....             | 44              |
| Ophthalmia neonatorum.....               | 45              | Malaria.....                    | 1               |
| Trachoma.....                            | 1               | Dysentery.....                  | 1               |
| Scarlet fever.....                       | 90              | Tetanus.....                    | 3               |
| Cerebrospinal meningitis.....            | 2               |                                 |                 |

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

State Reports for October, 1916.

| State.                    | Cases reported. |          |                |
|---------------------------|-----------------|----------|----------------|
|                           | Diphtheria.     | Measles. | Scarlet fever. |
| District of Columbia..... | 75              | 8        | 39             |
| Maryland.....             | 254             | 173      | 115            |
| Massachusetts.....        | 620             | 250      | 311            |
| New Jersey.....           | 405             | .....    | 121            |
| Vermont.....              | 27              | 27       | 35             |
| Wisconsin.....            | 212             | 176      | 249            |

City Reports for Week Ended Nov. 4, 1916.

| City.   | Popula-<br>tion as of<br>July 1, 1915<br>(estimated<br>by U. S.<br>Census<br>Bureau). | Total<br>deaths<br>from<br>all<br>causes. | Diphtheria. |         | Measles. |         | Scarlet<br>fever. |         | Tuber-<br>culosis. |         |
|---|---|---|-------------|---------|----------|---------|-------------------|---------|--------------------|---------|
|   |   |   | Cases.      | Deaths. | Cases.   | Deaths. | Cases.            | Deaths. | Cases.             | Deaths. |
| <b>Over 500,000 inhabitants:</b>                  |   |   |             |         |          |         |                   |         |                    |         |
| Baltimore, Md.....                                | 584,605   | 170                                       | 14          | 2       | 1        | 10      | .....             | 28      | 20                 | .....   |
| Boston, Mass.....                                 | 745,139   | 222                                       | 39          | 5       | 14       | 1       | 13                | .....   | 36                 | 22      |
| Chicago, Ill.....                                 | 2,447,045   | 559                                       | 226         | 28      | 46       | 4       | 117               | 2       | 179                | 46      |
| Cleveland, Ohio.....                              | 656,975   | 164                                       | 47          | 5       | 27       | .....   | .....             | .....   | 38                 | 12      |
| Detroit, Mich.....                                | 554,717   | 182                                       | 87          | 7       | 2        | .....   | .....             | .....   | 31                 | 17      |
| New York, N. Y.....                               | 5,468,190   | 1,281                                     | 167         | 11      | 17       | .....   | .....             | .....   | 383                | 162     |
| Philadelphia, Pa.....                             | 1,683,664   | 476                                       | 47          | 3       | 6        | .....   | .....             | .....   | 115                | 56      |
| Pittsburgh, Pa.....                               | 571,984   | 162                                       | 41          | 3       | 7        | .....   | .....             | .....   | 26                 | 13      |
| St. Louis, Mo.....                                | 745,988   | 187                                       | 88          | 6       | 5        | .....   | .....             | .....   | 38                 | 25      |
| <b>From 300,000 to 500,000 inhab-<br/>itants:</b> |   |   |             |         |          |         |                   |         |                    |         |
| Buffalo, N. Y.....                                | 461,335   | 116                                       | 26          | 1       | 2        | .....   | .....             | .....   | 21                 | 9       |
| Cincinnati, Ohio.....                             | 406,706   | 124                                       | 53          | 3       | 2        | .....   | .....             | .....   | 25                 | 17      |
| Jersey City, N. J.....                            | 300,133   | 81  | .....       | .....   | .....    | .....   | .....             | .....   | .....              | 2       |
| Los Angeles, Cal.....                             | 465,367   | 113                                       | 14          | 1       | 2        | .....   | .....             | .....   | 57                 | 19      |
| Milwaukee, Wis.....                               | 428,062   | 85  | 26          | 4       | 1        | .....   | .....             | .....   | 28                 | 1       |
| Minneapolis, Minn.....                            | 353,460   | .....                                     | 16          | .....   | 1        | .....   | .....             | .....   | 3                  | .....   |
| Newark, N. J.....                                 | 399,000   | .....                                     | 20          | 2       | 3        | .....   | .....             | .....   | 5                  | .....   |
| New Orleans, La.....                              | 366,484   | .....                                     | 23          | 3       | 38       | .....   | .....             | .....   | 3                  | .....   |
| Seattle, Wash.....                                | 330,834   | 51  | 2           | 1       | 3        | .....   | .....             | .....   | 3                  | .....   |
| Washington, D. C.....                             | 358,679   | 122                                       | 22          | .....   | 1        | .....   | .....             | .....   | 13                 | .....   |
| <b>From 200,000 to 300,000 inhab-<br/>itants:</b> |   |   |             |         |          |         |                   |         |                    |         |
| Columbus, Ohio.....                               | 209,722   | 71  | 27          | 2       | 9        | .....   | .....             | .....   | 16                 | 5       |
| Denver, Colo.....                                 | 253,161   | 54  | 7           | .....   | 2        | .....   | .....             | .....   | 2                  | .....   |
| Indianapolis, Ind.....                            | 265,578   | .....                                     | 17          | .....   | 6        | .....   | .....             | .....   | 14                 | .....   |
| Kansas City, Mo.....                              | 289,879   | 71  | 20          | 1       | 2        | .....   | .....             | .....   | 6                  | .....   |
| Portland, Oreg.....                               | 272,833   | 41  | 5           | 1       | 40       | .....   | .....             | .....   | 11                 | .....   |
| Providence, R. I.....                             | 250,025   | 61  | 15          | .....   | .....    | .....   | .....             | .....   | 7                  | .....   |
| Rochester, N. Y.....                              | 250,747   | .....                                     | 7           | .....   | 1        | .....   | .....             | .....   | 9                  | .....   |
| St. Paul, Minn.....                               | 241,999   | 55  | 23          | .....   | .....    | .....   | .....             | .....   | 5                  | .....   |
| <b>From 100,000 to 200,000 inhab-<br/>itants:</b> |   |   |             |         |          |         |                   |         |                    |         |
| Birmingham, Ala.....                              | 174,108   | 55  | 5           | .....   | 1        | .....   | .....             | .....   | 10                 | .....   |
| Bridgeport, Conn.....                             | 118,434   | .....                                     | 2           | .....   | .....    | .....   | .....             | .....   | .....              | .....   |
| Cambridge, Mass.....                              | 111,660   | 22  | 9           | .....   | 1        | .....   | .....             | .....   | 3                  | .....   |
| Fall River, Mass.....                             | 126,904   | 43  | 2           | .....   | 5        | .....   | .....             | .....   | 3                  | .....   |
| Grand Rapids, Mich.....                           | 125,759   | 34  | 5           | .....   | .....    | .....   | .....             | .....   | 2                  | .....   |
| Hartford, Conn.....                               | 108,969   | 33  | 3           | .....   | .....    | .....   | .....             | .....   | 11                 | .....   |
| Lowell, Mass.....                                 | 112,124   | 32  | 6           | .....   | 8        | .....   | .....             | .....   | 4                  | .....   |
| Lynn, Mass.....                                   | 100,316   | 20  | 3           | .....   | 1        | .....   | .....             | .....   | 5                  | .....   |
| Nashville, Tenn.....                              | 115,978   | 47  | 7           | .....   | 13       | .....   | .....             | .....   | 4                  | .....   |
| New Bedford, Mass.....                            | 114,694   | 35  | 1           | .....   | .....    | .....   | .....             | .....   | 4                  | .....   |
| New Haven, Conn.....                              | 147,085   | .....                                     | 3           | .....   | 1        | .....   | .....             | .....   | 3                  | .....   |
| Omaha, Nebr.....                                  | 135,455   | 36  | 5           | .....   | .....    | .....   | .....             | .....   | 3                  | .....   |
| Reading, Pa.....                                  | 105,094   | 32  | 4           | .....   | .....    | .....   | .....             | .....   | 5                  | .....   |
| Richmond, Va.....                                 | 154,674   | 54  | 5           | .....   | 6        | .....   | .....             | .....   | 11                 | .....   |
| Springfield, Mass.....                            | 103,216   | 32  | 8           | 1       | .....    | .....   | .....             | .....   | 4                  | .....   |
| Syracuse, N. Y.....                               | 152,534   | 39  | 4           | .....   | 1        | .....   | .....             | .....   | 2                  | .....   |
| Tacoma, Wash.....                                 | 108,094   | 13  | .....       | .....   | 136      | .....   | .....             | .....   | 1                  | .....   |
| Toledo, Ohio.....                                 | 187,840   | 65  | 6           | 1       | 2        | .....   | .....             | .....   | 17                 | .....   |
| Trenton, N. J.....                                | 109,212   | 33  | 4           | .....   | .....    | .....   | .....             | .....   | 2                  | .....   |
| Worcester, Mass.....                              | 160,523   | 46  | 6           | .....   | 4        | .....   | .....             | .....   | 6                  | .....   |

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Con.

City Reports for Week Ended Nov. 4, 1916—Continued.

| City.                               | Population as of July 1, 1915 (estimated by U. S. Census Bureau). | Total deaths from all causes. | Diphtheria. |         | Measles. |         | Scarlet fever. |         | Tuberculosis. |         |
|-------------------------------------|---|-------------------------------|-------------|---------|----------|---------|----------------|---------|---------------|---------|
|                                     |   |                               | Cases.      | Deaths. | Cases.   | Deaths. | Cases.         | Deaths. | Cases.        | Deaths. |
| From 50,000 to 100,000 inhabitants: |   |                               |             |         |          |         |                |         |               |         |
| Akron, Ohio.....                    | 82,958  |                               | 17          |         |          |         | 10             |         |               |         |
| Allentown, Pa.....                  | 61,901  | 18                            | 11          | 1       |          |         |                |         |               |         |
| Atlantic City, N. J.....            | 55,806  |                               |             |         | 1        |         |                | 1       |               |         |
| Bayonne, N. J.....                  | 67,582  |                               | 2           |         |          |         | 1              |         | 2             |         |
| Berkeley, Cal.....                  | 54,879  | 5                             | 1           |         |          |         | 3              |         |               |         |
| Binghamton, N. Y.....               | 53,082  | 26                            | 6           |         |          |         | 3              |         | 3             | 2       |
| Brockton, Mass.....                 | 65,746  | 13                            |             |         |          |         |                |         | 2             | 1       |
| Canton, Ohio.....                   | 59,139  | 13                            | 6           |         |          | 1       |                | 1       | 1             | 7       |
| Charleston, S. C.....               | 60,427  |                               | 6           | 1       |          |         |                |         |               | 1       |
| Covington, Ky.....                  | 56,520  | 6                             | 8           | 1       |          |         |                |         | 1             |         |
| Duluth, Minn.....                   | 91,913  |                               | 10          |         | 2        |         |                |         | 2             |         |
| El Paso, Tex.....                   | 51,936  | 30                            | 5           | 1       |          |         | 3              |         |               | 6       |
| Erie, Pa.....                       | 73,798  |                               | 1           |         |          |         |                |         | 7             | 32      |
| Evansville, Ind.....                | 72,125  | 19                            | 5           | 3       |          |         | 1              |         | 3             | 4       |
| Fort Worth, Tex.....                | 99,528  | 7                             |             |         |          |         |                |         |               | 2       |
| Harrisburg, Pa.....                 | 70,754  | 21                            | 3           |         |          |         |                |         | 3             |         |
| Hoboken, N. J.....                  | 76,104  | 14                            | 1           |         |          |         | 1              |         | 3             | 1       |
| Johnstown, Pa.....                  | 66,585  | 22                            |             |         | 1        |         | 5              |         |               | 1       |
| Lancaster, Pa.....                  | 50,269  |                               | 1           |         |          |         |                |         |               |         |
| Lawrence, Mass.....                 | 98,197  | 23                            | 2           |         |          |         | 2              |         | 2             | 1       |
| Little Rock, Ark.....               | 55,158  | 16                            | 2           |         |          |         | 1              |         | 1             |         |
| Manchester, N. H.....               | 76,959  | 19                            | 2           |         |          |         |                |         |               |         |
| Mobile, Ala.....                    | 56,536  | 22                            | 4           |         |          |         | 1              |         |               | 1       |
| New Britain, Conn.....              | 52,203  |                               | 1           | 1       |          |         | 1              |         | 1             |         |
| Norfolk, Va.....                    | 88,076  | 31                            |             |         |          |         | 2              |         | 2             | 2       |
| Oklahoma, Okla.....                 | 88,158  | 9                             |             |         | 1        |         | 6              |         | 1             |         |
| Passaic, N. J.....                  | 69,010  | 13                            | 1           |         | 1        | 1       |                |         | 1             |         |
| Pawtucket, R. I.....                | 58,156  | 21                            | 2           |         |          |         | 1              |         |               | 1       |
| Portland, Me.....                   | 63,014  | 26                            |             | 1       |          |         |                |         |               | 1       |
| Sacramento, Cal.....                | 64,806  | 20                            |             |         |          |         |                |         | 2             | 3       |
| St. Joseph, Mo.....                 | 83,974  | 19                            | 6           |         |          |         | 2              |         |               | 3       |
| San Diego, Cal.....                 | 51,115  | 21                            | 4           |         |          |         | 2              |         |               | 3       |
| Schenectady, N. Y.....              | 95,265  | 17                            | 3           |         | 2        |         | 2              |         | 4             | 1       |
| Sioux City, Iowa.....               | 55,588  |                               | 5           |         |          |         |                |         |               |         |
| Somerville, Mass.....               | 85,460  | 25                            | 4           |         |          |         |                |         | 7             |         |
| South Bend, Ind.....                | 67,030  | 7                             | 3           |         |          |         | 2              |         |               | 1       |
| Springfield, Ill.....               | 59,468  | 11                            | 5           | 1       |          |         | 4              |         |               | 2       |
| Springfield, Ohio.....              | 50,804  | 19                            | 1           |         |          |         |                |         | 1             | 2       |
| Wichita, Kans.....                  | 67,847  |                               | 1           | 1       |          |         |                |         |               | 2       |
| Wilkes-Barre, Pa.....               | 75,218  | 23                            | 1           |         |          |         | 3              |         | 5             |         |
| Wilmington, Del.....                | 93,161  | 29                            |             |         |          |         | 2              |         | 4             |         |
| From 25,000 to 50,000 inhabitants:  |   |                               |             |         |          |         |                |         |               |         |
| Alameda, Cal.....                   | 27,031  | 4                             | 3           | 1       | 1        |         | 1              |         |               |         |
| Auburn, N. Y.....                   | 36,947  | 8                             | 1           |         |          |         | 1              |         |               |         |
| Bellingham, Wash.....               | 31,609  | 4                             |             |         |          |         |                |         |               |         |
| Brookline, Mass.....                | 31,934  | 3                             |             |         |          |         |                |         | 1             |         |
| Butler, Pa.....                     | 26,587  | 4                             | 4           | 2       |          |         | 1              |         |               |         |
| Butte, Mont.....                    | 42,918  | 28                            |             |         |          |         |                |         | 2             |         |
| Chelsea, Mass.....                  | 132,452   | 10                            | 3           |         |          |         |                |         |               | 1       |
| Chicope, Mass.....                  | 26,688  | 5                             | 4           |         | 1        |         |                |         |               | 1       |
| Cumberland, Md.....                 | 25,564  | 8                             | 1           |         |          |         |                |         | 1             |         |
| Danville, Ill.....                  | 31,554  | 16                            |             |         |          |         |                |         |               |         |
| Davenport, Iowa.....                | 47,127  |                               | 1           |         |          |         | 7              |         |               |         |
| East Orange, N. J.....              | 41,155  | 9                             | 1           |         |          |         |                |         |               |         |
| Everett, Mass.....                  | 38,307  | 9                             | 1           |         |          |         |                |         | 3             | 2       |
| Everett, Wash.....                  | 33,767  | 5                             |             |         | 1        |         | 2              |         |               |         |
| Fitchburg, Mass.....                | 41,144  | 15                            | 1           | 1       |          |         |                |         | 3             |         |
| Galveston, Tex.....                 | 41,076  | 11                            | 3           |         |          |         | 1              |         |               | 1       |
| Haverhill, Mass.....                | 47,774  |                               | 1           |         |          |         |                |         | 1             | 2       |
| Jackson, Mich.....                  | 34,730  | 13                            | 1           |         |          |         | 2              |         | 1             |         |
| Kalamazoo, Mich.....                | 47,364  | 17                            | 2           |         |          |         | 1              |         | 3             | 2       |
| Kenosha, Wis.....                   | 30,319  | 7                             | 1           |         |          |         |                |         | 3             | 1       |
| La Crosse, Wis.....                 | 31,522  | 8                             | 2           |         |          |         |                |         |               |         |
| Lexington, Ky.....                  | 39,703  | 4                             | 11          |         |          |         | 4              |         |               |         |
| Lima, Ohio.....                     | 34,644  |                               | 1           |         |          |         | 4              |         |               |         |
| Lincoln, Nebr.....                  | 46,028  | 7                             | 4           | 1       | 2        |         | 3              |         |               |         |
| Long Beach, Cal.....                | 26,012  | 14                            |             |         |          |         |                |         | 2             |         |
| Lorain, Ohio.....                   | 35,662  |                               | 1           |         |          |         | 6              |         |               |         |
| Lynchburg, Va.....                  | 32,385  | 13                            |             |         | 5        |         |                |         | 3             | 2       |

<sup>1</sup>Population Apr. 15, 1910; no estimate made.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Con.

City Reports for Week Ended Nov. 4, 1916—Continued.

| City.   | Popula-<br>tion as of<br>July 1, 1915<br>(estimated<br>by U. S.<br>Census<br>Bureau). | Total<br>deaths<br>from<br>all<br>causes. | Diphtheria. |         | Measles. |         | Scarlet<br>fever. |         | Tuber-<br>culosis. |         |
|---|---|---|-------------|---------|----------|---------|-------------------|---------|--------------------|---------|
|   |   |   | Cases.      | Deaths. | Cases.   | Deaths. | Cases.            | Deaths. | Cases.             | Deaths. |
| From 25,000 to 50,000 inhabit-<br>ants—Continued. |   |   |             |         |          |         |                   |         |                    |         |
| Madison, Wis.....                                 | 30,084  |   | 3           |         |          |         | 4                 |         |                    |         |
| Medford, Mass.....                                | 25,737  | 2   |             |         |          |         |                   |         |                    |         |
| Montclair, N. J.....                              | 25,550  | 3   |             |         |          |         |                   |         | 2                  | 1       |
| Newport, Ky.....                                  | 31,722  | 10  | 2           |         |          |         |                   |         | 1                  | 1       |
| Newton, Mass.....                                 | 43,085  | 16  |             |         |          |         |                   |         | 3                  | 1       |
| Niagara Falls, N. Y.....                          | 36,240  | 10  | 4           |         | 9        |         |                   |         |                    | 1       |
| Norristown, Pa.....                               | 30,833  | 6   | 3           |         |          |         |                   |         | 2                  |         |
| Ogden, Utah.....                                  | 30,466  | 4   |             |         | 2        |         | 4                 |         |                    |         |
| Orange, N. J.....                                 | 32,524  | 13  | 1           |         |          |         |                   |         |                    |         |
| Pasadena, Cal.....                                | 43,859  | 8   |             |         |          |         |                   |         |                    |         |
| Perth Amboy, N. J.....                            | 39,725  |   | 5           |         | 1        |         |                   |         | 2                  |         |
| Pittsfield, Mass.....                             | 37,580  | 4   | 1           |         |          |         | 3                 |         |                    |         |
| Portsmouth, Va.....                               | 38,610  | 5   | 1           |         |          |         |                   |         |                    |         |
| Quincy, Ill.....                                  | 36,764  | 7   | 4           | 2       |          |         |                   |         |                    |         |
| Quincy, Mass.....                                 | 37,251  | 14  |             |         |          |         |                   |         |                    |         |
| Roanoke, Va.....                                  | 41,929  | 10  | 2           | 1       | 1        |         |                   |         |                    |         |
| San Jose, Cal.....                                | 37,994  | 9   | 2           |         | 1        |         | 1                 |         | 3                  |         |
| Steuenville, Ohio.....                            | 26,631  | 9   |             |         |          |         |                   |         |                    |         |
| Stockton, Cal.....                                | 34,508  | 8   | 3           |         | 10       |         |                   |         | 1                  | 1       |
| Superior, Wis.....                                | 45,285  | 4   |             |         |          |         |                   |         |                    |         |
| Taunton, Mass.....                                | 35,957  | 15  | 2           |         |          |         | 4                 | 1       | 3                  |         |
| Topeka, Kans.....                                 | 47,914  | 11  | 1           |         | 7        |         |                   |         | 1                  |         |
| Waltham, Mass.....                                | 30,129  | 6   | 1           |         |          |         | 1                 |         | 1                  |         |
| Watertown, N. Y.....                              | 29,384  | 7   |             |         | 1        |         |                   |         |                    |         |
| West Hoboken, N. J.....                           | 41,833  |   |             |         |          |         |                   |         | 2                  | 1       |
| Wheeling, W. Va.....                              | 43,047  | 14  | 2           | 1       | 3        |         |                   |         | 1                  | 1       |
| Williamsport, Pa.....                             | 33,495  |   | 5           |         |          |         | 1                 |         | 1                  |         |
| Zanesville, Ohio.....                             | 30,406  | 11  |             |         |          |         | 2                 |         |                    | 2       |
| From 10,000 to 25,000 inhabit-<br>ants:           |   |   |             |         |          |         |                   |         |                    |         |
| Ann Arbor, Mich.....                              | 14,979  | 7   | 3           |         |          |         | 1                 |         | 2                  | 1       |
| Braddock, Pa.....                                 | 21,310  | 4   |             |         |          |         |                   |         |                    |         |
| Cairo, Ill.....                                   | 15,533  | 8   | 3           |         |          |         |                   |         |                    | 3       |
| Clinton, Mass.....                                | 13,075  | 3   |             |         |          |         |                   |         |                    | 1       |
| Coffeyville, Kans.....                            | 16,765  |   |             |         |          |         |                   |         | 1                  |         |
| Concord, N. H.....                                | 22,480  | 8   | 2           |         |          |         | 4                 |         |                    | 1       |
| Galesburg, Ill.....                               | 23,923  | 2   |             |         |          |         |                   |         |                    |         |
| Kearny, N. J.....                                 | 22,753  | 5   |             |         |          |         |                   |         | 2                  |         |
| Kokomo, Ind.....                                  | 20,312  | 5   | 1           |         | 57       |         | 1                 |         |                    | 1       |
| Long Branch, N. J.....                            | 15,057  | 1   | 1           |         |          |         |                   |         |                    |         |
| Morristown, N. J.....                             | 13,158  | 6   | 1           |         |          |         | 2                 |         |                    |         |
| Nanticoke, Pa.....                                | 22,441  |   | 3           |         |          |         |                   |         | 4                  |         |
| Newburyport, Mass.....                            | 15,195  | 4   |             |         |          |         | 1                 |         |                    |         |
| New London, Conn.....                             | 20,771  | 6   |             |         | 1        |         |                   |         | 2                  | 1       |
| North Adams, Mass.....                            | 12,019  | 8   |             |         |          |         |                   |         |                    |         |
| Northampton, Mass.....                            | 19,846  | 9   |             |         | 5        |         |                   |         | 1                  | 1       |
| Portsmouth, N. H.....                             | 11,602  |   |             |         | 9        |         |                   |         |                    |         |
| Rutland, Vt.....                                  | 14,624  | 1   |             |         | 6        |         |                   |         |                    |         |
| Sandusky, Ohio.....                               | 20,160  |   | 1           |         | 22       |         |                   |         | 1                  |         |
| Saratoga Springs, N. Y.....                       | 12,842  | 8   | 6           |         |          |         |                   |         |                    | 2       |
| Steelton, Pa.....                                 | 15,337  | 9   |             |         |          |         |                   |         | 2                  | 1       |
| Wilkinsburg, Pa.....                              | 22,361  | 2   |             |         |          |         | 3                 |         | 1                  |         |
| Woburn, Mass.....                                 | 15,862  | 4   |             |         |          |         |                   |         |                    |         |

<sup>1</sup> Population Apr. 15, 1910; no estimate made.

# FOREIGN.

## CHINA.

### Plague-Infected Rats—Hongkong.

Examination of rats has been reported at Hongkong as follows: During the three weeks ended August 26, 1916, out of 6,058 rats examined 5 were plague infected; during the three weeks ended September 30, 1916, 8,860 rats were examined; no infection was found.

The last previously reported plague rat at Hongkong was reported found during the week ended July 22, 1916.

## CUBA.

### Communicable Diseases—Habana.

Communicable diseases have been notified in Habana as follows:

| Disease.        | Period Oct. 21-31, 1916. |         | Remain-<br>ing under<br>treatment<br>Oct. 31,<br>1916. | Disease.               | Period Oct. 21-31, 1916. |         | Remain-<br>ing under<br>treatment<br>Oct. 31,<br>1916. |
|-----------------|--------------------------|---------|--|------------------------|--------------------------|---------|--|
|                 | New<br>cases.            | Deaths. |  |                        | New<br>cases.            | Deaths. |  |
| Diphtheria..... | 4                        | 1       | 2  | Paratyphoid fever..... | 1                        | .....   | 7  |
| Leprosy.....    | .....                    | .....   | 248  | Scarlet fever.....     | 3                        | .....   | 2  |
| Malaria.....    | 20                       | .....   | 24   | Typhoid fever.....     | 14                       | 2       | 42   |
| Measles.....    | 3                        | .....   | 14   | Varicella.....         | 1                        | 1       | 1  |

### Quarantine Measures Against Bristol and Hull.

Measures were ordered, November 6, 1916, by the quarantine service of Cuba, to be enforced against vessels and passengers leaving the ports of Bristol and Hull, England, for ports in Cuba, as follows:

Vessels leaving Bristol or Hull destined for any Cuban port will be deratized immediately before leaving, in the open bay, by means of any of the methods in use by the quarantine service of Cuba.

Vessels that have not complied with that requisite at the port of departure will be deratized, under direction of the medical officer at the port in Cuba at which they arrive, before unloading.

Passengers arriving from Bristol or Hull will be subject to special examination before being allowed to land.

## GREAT BRITAIN.

### Examination of Rats—Hull.

Examination of rats at Hull, England, has been reported as follows: Week ended October 21, 1916, 21 rats examined, of which 5 were from

the steamship *Mansuri* from Bombay and the remainder from dock warehouses; week ended October 28, 1916, 30 rats of which 15 were from ships in dock and the remainder from dock warehouses. No plague infection was found. The total number of rats examined between August 19 and October 28, 1916, was 229.

### KOREA.

#### Cholera.

During the period from August 1 to October 8, 1916, 893 cases of cholera were notified in Korea. The cases were distributed in nine provinces.

### MARTINIQUE.

#### Yellow Fever—Fort de France.

A fatal case of yellow fever was notified at Fort de France, Martinique, October 23, 1916.

### PERSIA.

#### Cholera.

During the month of September, 1916, 35 cases of cholera with 24 deaths were notified in Persia. Of these, 6 cases with 4 deaths occurred at Teheran.

### TURKEY.

#### Cholera.

During the months of July and August and the first week in September, 1916, 1,107 cases of cholera were notified in Turkey, making a total from the beginning of the outbreak in June, 1916, of 9,009 cases with 4,651 deaths. The occurrence of the disease was chiefly in the provinces of Asiatic Turkey.

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

### Reports Received During Week Ended Nov. 24, 1916.<sup>1</sup>

#### CHOLERA.

| Place.                  | Date.              | Cases. | Deaths. | Remarks.          |
|-------------------------|--------------------|--------|---------|-------------------|
| Austria-Hungary:        |                    |        |         |                   |
| Bosnia-Herzegovina..... | July 9-Aug. 15.... | 32     | 7       |                   |
| Croatia-Slavonia.....   | Sept. 4-11.....    | 4      | 2       |                   |
| India:                  |                    |        |         |                   |
| Bombay.....             | Sept. 24-30.....   | 14     | 6       |                   |
| Japan:                  |                    |        |         | Present.          |
| Keolung.....            | Oct. 1-7.....      | .....  | .....   |                   |
| Nagasaki.....           | Oct. 16-22.....    | 1      | .....   |                   |
| Taiwan Island.....      | Oct. 1-7.....      | 2      | 1       |                   |
| Korea.....              | Aug. 1-Oct. 8..... | 893    | .....   |                   |
| Persia:                 |                    |        |         |                   |
| Kazvin.....             | Sept. 1-30.....    | 6      | 5       |                   |
| Keredg.....             | Sept. 1-30.....    | 4      | 4       |                   |
| Teheran.....            | Sept. 1-30.....    | 25     | 11      | Including suburb. |

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received During Week Ended Nov. 24, 1916—Continued.

### CHOLERA—Continued.

| Place.  | Date.                | Cases. | Deaths. | Remarks.  |
|---|----------------------|--------|---------|---|
| <b>Turkey in Europe:</b><br>Constantinople..... | July 22-Aug. 28...   | 43     | 16      | July-Sept. 7, 1916: Cases, 1,064; deaths, 1,092. Total from June 1 to Sept. 7: Cases, 9,009; deaths, 4,651. |
| <b>Turkey in Asia:</b><br>Adana.....            | July 13-Sept. 3..... | 34     | 11      |   |
| Aleppo.....                                     | July 13-Sept. 3..... | 30     | 11      |   |
| Bagdad.....                                     | July 12-Sept. 7..... | 13     | 2       |   |
| Beirut.....                                     | July 16-Aug. 4.....  | 8      | 8       |   |
| Smyrna.....                                     | July 17-Aug. 7.....  | 5      | .....   |   |

### PLAGUE.

|                               |                  |       |     |  |
|-------------------------------|------------------|-------|-----|--|
| <b>India:</b><br>Bassein..... | Sept. 3-9.....   | ..... | 1   |  |
| Bombay.....                   | Sept. 24-30..... | 11    | 8   |  |
| Madras.....                   | Oct. 1-7.....    | 3     | 2   |  |
| Madras Presidency.....        | do.....          | 468   | 309 |  |
| Mandalay.....                 | Sept. 3-9.....   | ..... | 1   |  |
| Prome.....                    | do.....          | ..... | 5   |  |
| Toungoo.....                  | do.....          | ..... | 2   |  |

### SMALLPOX.

|  |                       |       |       |  |
|--|-----------------------|-------|-------|--|
| <b>Brazil:</b><br>Bahia.....                               | Sept. 9-Oct. 14.....  | 12    | 10    |  |
| <b>China:</b><br>Harbin.....                               | Aug. 28-Sept. 10..... | 2     | ..... |  |
| <b>Germany:</b><br>Schleswig, district—<br>Allenstein..... | Sept. 24-30.....      | 1     | ..... |  |
| Meldorf.....   | do.....               | 1     | ..... |  |
| <b>India:</b><br>Bombay.....                               | do.....               | 3     | 1     |  |
| Madras.....  | Oct. 1-7.....         | 2     | 3     |  |
| <b>Russia:</b><br>Petrograd.....                           | Sept. 3-16.....       | 19    | 5     |  |
| <b>Spain:</b><br>Seville.....                              | Sept. 1-30.....       | ..... | 15    |  |
| Valencia.....  | Oct. 14-21.....       | 1     | ..... |  |

### TYPHUS FEVER.

|                                       |                  |       |       |            |
|---------------------------------------|------------------|-------|-------|------------|
| <b>Germany:</b><br>Berlin.....        | Oct. 8-14.....   | ..... | 2     | Prevalent. |
| Breslau.....                          | Oct. 23-30.....  | 1     | ..... |            |
| Hanover.....                          | Sept. 24-30..... | ..... | 1     |            |
| Königsberg.....                       | Oct. 15-21.....  | 7     | 1     |            |
| <b>Great Britain:</b><br>Dublin.....  | Oct. 8-14.....   | 1     | ..... |            |
| <b>Greece:</b><br>Saloniki.....       | Sept. 12-28..... | ..... | 8     |            |
| <b>Mexico:</b><br>Torreon.....        | Oct. 20.....     | ..... | ..... |            |
| <b>Netherlands:</b><br>Rotterdam..... | Oct. 1-11.....   | 3     | ..... |            |
| <b>Russia:</b><br>Petrograd.....      | Sept. 3-9.....   | 3     | 1     |            |
| <b>Turkey in Asia:</b><br>Haifa.....  | Sept. 4-17.....  | 15    | 7     |            |

### YELLOW FEVER.

|   |                 |   |       |  |
|---|-----------------|---|-------|--|
| <b>Martinique:</b><br>Fort de France..... | Oct. 23.....    | 1 | 1     |  |
| <b>Mexico:</b><br>Merida.....             | Oct. 22-28..... | 1 | ..... |  |

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from July 1 to Nov. 17, 1916.

### CHOLERA.

| Place.                       | Date.                 | Cases. | Deaths. | Remarks.  |
|------------------------------|-----------------------|--------|---------|---|
| Austria-Hungary.....         |                       |        |         | Mar. 12-May 6, 1916: Cases, 425; deaths, 155.   |
| Austria.....                 | Mar. 26-Apr. 8.....   | 2      |         |   |
| Do.....                      | July 9-15.....        | 1      |         |   |
| Bosnia-Herzegovina.....      | Mar. 12-May 20.....   | 398    | 147     |   |
| Do.....                      | July 1-8.....         | 1      |         |   |
| Hungary.....                 | Mar. 20-Apr. 2.....   | 2      |         |   |
| Do.....                      | July 9-15.....        | 1      |         |   |
| Ceylon:                      |                       |        |         |   |
| Colombo.....                 | June 25-July 1.....   | 1      | 1       | May 7-20, 1916: Cases, 43; deaths, 5, from s. s. Hong Kheng from Halfong; total to June 1: Cases, 61; deaths, 37; May 23-June 10, 1916: Cases, 19, from the port.   |
| China:                       |                       |        |         |   |
| Canton.....                  | Aug. 11-31.....       |        | 13      | On s. s. Taihei Maru from Hongkong and Chefoo.  |
| Dairen.....                  | Aug. 6-12.....        | 1      |         |   |
| Hongkong.....                | Aug. 19-Sept. 2.....  |        | 9       |   |
| Macao.....                   | Aug. 17.....          |        |         | Present.  |
| Shanghai.....                | Aug. 20-26.....       |        | 2       | Chinese.  |
| Egypt:                       |                       |        |         |   |
| Suez.....                    | May 18-20.....        | 5      | 2       | From s. s. Pei-ho from Bombay.  |
| Tor, quarantine station..... | May 22-June 3.....    | 112    | 42      | Do.   |
| Germany:                     |                       |        |         |   |
| Hanover.....                 | Aug. 28-Sept. 2.....  |        | 1       |   |
| Greece:                      |                       |        |         |   |
| Moschopolis.....             | July 25-31.....       | 15     | 8       |   |
| India:                       |                       |        |         |   |
| Akyab.....                   | June 11-July 8.....   |        | 2       |   |
| Bassein.....                 | Apr. 23-June 10.....  |        | 3       |   |
| Bombay.....                  | May 14-July 1.....    | 21     | 9       |   |
| Do.....                      | July 2-Sept. 23.....  | 148    | 99      |   |
| Calcutta.....                | May 7-July 1.....     |        | 259     |   |
| Do.....                      | July 2-Sept. 16.....  |        | 101     |   |
| Henzada.....                 | Apr. 23-July 22.....  |        | 7       |   |
| Karachi.....                 | Aug. 28-Sept. 23..... | 56     | 49      |   |
| Madras.....                  | June 25-July 1.....   | 1      | 1       |   |
| Do.....                      | July 2-22.....        | 5      | 3       |   |
| Madura District.....         | Aug. 28-Sept. 9.....  |        | 2       |   |
| Mandalay.....                | July 23-29.....       |        | 1       |   |
| Pakokku.....                 | July 2-8.....         |        | 1       |   |
| Pegu.....                    | June 4-10.....        |        | 1       |   |
| Rangoon.....                 | May 24-July 29.....   | 13     | 9       |   |
| Do.....                      | July 1-Aug. 26.....   | 2      | 1       |   |
| Indo-China.....              |                       |        |         | Dec. 1-31, 1915: Cases, 510; deaths, 395. Jan. 1-Mar. 31, 1916: Cases, 2,013; deaths, 1,100.  |
| Provinces—                   |                       |        |         |   |
| Anam.....                    | Dec. 1-31.....        | 493    | 388     |   |
| Do.....                      | Jan. 1-Mar. 31.....   | 1,753  | 1,024   |   |
| Cambodia.....                | Jan. 1-Feb. 29.....   | 11     | 10      |   |
| Cochin-China.....            | Jan. 1-Mar. 31.....   | 10     | 4       |   |
| Tonkin.....                  | Dec. 1-31.....        | 17     | 7       |   |
| Do.....                      | Jan. 1-Mar. 31.....   | 244    | 62      |   |
| Saigon.....                  | May 1-July 2.....     | 162    | 74      |   |
| Do.....                      | July 3-Sept. 2.....   | 69     | 45      |   |
| Japan:                       |                       |        |         |   |
| Keelung.....                 | Sept. 24-30.....      |        |         | Present.  |
| Kobe.....                    | Aug. 30-Oct. 8.....   | 375    | 135     | Since Aug. 14, 1916: Cases, 375; deaths, 162.   |
| Nagasaki.....                | Aug. 8-Sept. 24.....  | 327    | 160     |   |
| Osaka.....                   | Aug. 30-Sept. 30..... | 779    | 246     | Since Aug. 13, 1916: Cases, 821; deaths, 392.   |
| Taiwan Island.....           | Sept. 21-30.....      | 13     | 3       |   |
| Yokohama.....                | Aug. 15.....          | 6      | 5       | 55 cases, with 9 deaths in quarantine, from s. s. Hawaii Maru from Hongkong via ports.  |
| Do.....                      | Sept. 4-Oct. 8.....   | 46     | 34      | Total to Oct. 1, 1916: Cases, 63; deaths, 46.   |
| Suburbs of city.....         | Aug. 14-20.....       | 8      | 4       |   |
| Districts.....               | Sept. 4-Oct. 8.....   | 74     | 48      | Total to Oct. 1, 1916: Cases, 125; deaths, 85.  |
| Java.....                    |                       |        |         | East Java, Apr. 8-June 30, 1916: Cases, 50; deaths, 35. July 1-Aug. 4: Cases, 13; deaths, 8. Mid Java, June 3-30, 1916: Cases, 30; deaths, 25. July 1-Aug. 4: Cases, 78; deaths, 65. West Java, Apr. 3-June 29, 1916: Cases, 661; deaths, 409. July 7-Aug. 17: Cases, 562; deaths, 364. |
| Batavia.....                 | Apr. 13-June 23.....  |        | 89      |   |
| Do.....                      | July 7-13.....        | 16     | 12      |   |
| Malang.....                  | Apr. 8-14.....        | 2      | 2       |   |
| Malang and Djombang.....     | Apr. 23-May 5.....    | 2      | 2       |   |
| Surabaya residency.....      | May 6-19.....         | 5      | 2       | Including Malang, 2 cases, and Sidoarjo and Malang, 3 cases, with 2 deaths.   |

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from July 1 to Nov. 17, 1916—Continued.

### CHOLERA—Continued.

| Place.                      | Date.                 | Cases. | Deaths. | Remarks.  |
|-----------------------------|-----------------------|--------|---------|---|
| <b>Korea.</b>               |                       |        |         |   |
| Chemulpo.....               | Sept. 18.....         | 2      |         | Sept. 23, 1916: In southern and central Korea, 108 cases. |
| Fusan.....                  | Aug. 1-Sept. 2.....   | 2      | 1       |   |
| <b>Persia:</b>              |                       |        |         |   |
| Asterabad.....              | June 10.....          |        |         | Present, with 4 or 5 deaths daily.                        |
| Enzeli.....                 | July 1-Aug. 31.....   | 7      | 5       | Previously erroneously included in cases at Recht.        |
| Foumen.....                 | May 9.....            | 3      | 2       |   |
| Ghazien.....                | June 13.....          | 2      | 1       |   |
| Kazvin.....                 | July 1-Aug. 31.....   | 22     | 29      |   |
| Mohammerah.....             | June 12.....          |        |         | Present.  |
| Recht.....                  | July 1-Aug. 31.....   | 19     | 11      |   |
| Tabriz.....                 | Aug. 1-31.....        |        | 12      |   |
| Teheran.....                | do.....               |        | 2       |   |
| Urumiah.....                | July 1-31.....        | 25     |         |   |
| <b>Philippine Islands:</b>  |                       |        |         |   |
| Manila.....                 | May 14-July 1.....    | 36     | 25      | Not previously reported. Cases, 72; deaths, 6.            |
| Do.....                     | Aug. 6-Sept. 30.....  | 568    | 201     |   |
| <b>Provinces.....</b>       |                       |        |         |   |
| Albay.....                  | July 2-Sept. 30.....  | 412    | 211     | July 16-Sept. 16, 1916: Cases, 3,204; deaths, 1,911.      |
| Antique.....                | Sept. 17-30.....      | 5      | 4       |   |
| Bataan.....                 | July 2-Sept. 30.....  | 81     | 64      |   |
| Batangas.....               | July 30-Sept. 30..... | 57     | 37      |   |
| Bulacan.....                | June 18-July 1.....   | 17     | 4       |   |
| Do.....                     | July 2-Sept. 30.....  | 867    | 477     |   |
| Cagayan.....                | June 25-July 1.....   |        | 2       |   |
| Do.....                     | July 2-8.....         |        | 2       |   |
| Camarines.....              | June 18-July 1.....   | 69     | 32      |   |
| Do.....                     | July 2-Sept. 30.....  | 969    | 607     |   |
| Cavite.....                 | June 11-July 1.....   | 14     | 11      |   |
| Do.....                     | July 2-Sept. 30.....  | 49     | 40      |   |
| Iloilo.....                 | Aug. 20-Sept. 30..... | 2,217  | 811     |   |
| Laguna.....                 | May 21-July 1.....    | 31     | 20      |   |
| Do.....                     | July 2-Sept. 30.....  | 161    | 118     |   |
| Lanao.....                  | May 28-June 3.....    | 110    | 88      |   |
| Mindanao.....               | July 16-Aug. 5.....   | 19     | 11      |   |
| Mindoro.....                | May 21-27.....        | 7      | 7       |   |
| Do.....                     | Sept. 3-16.....       | 6      | 4       |   |
| Misamis.....                | July 16-Sept. 16..... | 218    | 119     |   |
| Negros Occidental.....      | Sept. 3-23.....       | 73     | 52      |   |
| Nueva Ecija.....            | Sept. 10-23.....      | 3      |         |   |
| Pampanga.....               | July 9-Sept. 30.....  | 179    | 154     |   |
| Rizal.....                  | May 24-July 1.....    | 11     | 9       |   |
| Do.....                     | July 2-Sept. 30.....  | 451    | 256     |   |
| Romblon.....                | June 18-July 1.....   | 63     | 39      |   |
| Do.....                     | July 9-Sept. 30.....  | 24     | 20      |   |
| Samar.....                  | Aug. 28-Sept. 23..... | 12     | 9       |   |
| Tayabas.....                | June 10-24.....       | 11     | 8       |   |
| Do.....                     | Aug. 6-Sept. 9.....   | 2      | 1       |   |
| Zambales.....               | Aug. 20-Sept. 30..... | 79     | 18      |   |
| <b>Siam:</b>                |                       |        |         |   |
| Bangkok.....                | May 15-27.....        | 22     | 21      |   |
| Do.....                     | July 16-Aug. 12.....  | 5      | 5       |   |
| <b>Straits Settlements:</b> |                       |        |         |   |
| Singapore.....              | May 27-June 24.....   | 8      | 3       |   |
| Do.....                     | Aug. 13-19.....       | 1      | 1       |   |
| <b>Turkey in Europe:</b>    |                       |        |         |   |
| Constantinople.....         | May 19-July 6.....    | 118    | 63      | Present among soldiers June 14.                           |
| <b>Turkey in Asia:</b>      |                       |        |         |   |
| Adana.....                  | June 16-July 9.....   | 106    | 60      |   |
| Aleppo.....                 | June 15-25.....       | 47     | 16      |   |
| Bagdad.....                 | June 15-July 5.....   | 78     | 18      |   |
| Beirut.....                 | July 14-19.....       | 39     | 17      |   |
| Damascus.....               | June 16-July 3.....   | 77     | 50      |   |
| Jaffa.....                  | June 17-25.....       | 67     | 39      |   |
| Do.....                     | July 1-29.....        | 151    | 63      |   |
| Mersina.....                | Aug. 6-Sept. 9.....   | 7      | 2       |   |
| Smyrna.....                 | June 15-28.....       | 22     | 13      | Epidemic. Estimated number cases daily, 50.               |
| Trebizond.....              | Aug. 6-Sept. 30.....  | 55     | 13      |   |
| <b>At sea:</b>              |                       |        |         |   |
| Steamship Hong-Kheng.....   | Apr. 27-May 9.....    | 17     | 14      | En route from Haifong, Indo-China, to Colombo.            |
| Steamship Pei-ho.....       | Apr. 19-30.....       | 1      | 1       | From Saigon, Indo-China, for Colombo.                     |
| Do.....                     | May 5-17.....         | 8      | 8       | From Colombo for Suez.                                    |

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from July 1 to Nov. 17, 1916—Continued.

### PLAGUE.

| Place.                 | Date.               | Cases. | Deaths. | Remarks.   |
|------------------------|---------------------|--------|---------|--|
| <b>Brazil:</b>         |                     |        |         |  |
| Pernambuco, State..... | Jan. 1-Mar. 31..... |        |         | Several cases.   |
| <b>Ceylon:</b>         |                     |        |         |  |
| Colombo.....           | Apr. 30-July 1....  | 49     | 46      |  |
| Do.....                | July 2-Sept. 9....  | 67     | 63      |  |
| <b>Chile:</b>          |                     |        |         |  |
| Mejillones.....        | May 28-June 3....   | 1      |         |  |
| Antofagasta.....       | June 4-July 22....  | 2      |         |  |
| <b>China:</b>          |                     |        |         |  |
| Amoy.....              | July 16-Aug. 19...  |        |         | Present.   |
| Canton.....            | Aug. 1-10.....      |        | 3       |  |
| Hongkong.....          | May 28-June 30...   | 7      | 7       | Mar. 19-25: Cases, 2; deaths, 2.   |
| Do.....                | July 23-Sept. 30... | 7      | 5       |  |
| <b>Ecuador:</b>        |                     |        |         |  |
| Ambato.....            | May 1-31.....       |        |         | Epidemic.  |
| Bahia.....             | do.....             |        |         | Country district, vicinity of  |
| Daule.....             | June 1-30.....      | 4      | 2       | Bahia.   |
| Guayaquil.....         | May 1-June 30....   | 10     | 3       |  |
| Do.....                | July 1-Aug. 31....  | 25     | 9       |  |
| Manta.....             | May 1-31.....       |        |         |  |
| Santa Rosa.....        | Aug. 1-31.....      | 1      |         | Country district, vicinity of  |
| <b>Egypt.....</b>      |                     |        |         | Jan. 1-Oct. 5, 1916: Cases, 1,695; deaths, 824. Jan. 1-June 29, 1916: Cases, 1,634; deaths, 792, Imported. |
| Alexandria.....        | May 26-Sept. 23...  | 48     | 28      |  |
| Cairo.....             | July 10-Oct. 4....  | 2      |         |  |
| Port Said.....         | May 7-June 28....   | 11     | 10      |  |
| Do.....                | July 20-Aug. 3....  | 5      | 4       |  |
| <b>Provinces—</b>      |                     |        |         |  |
| Assiout.....           | May 27-June 29...   | 9      | 8       |  |
| Beni Souef.....        | May 26-June 25...   | 34     | 15      |  |
| Do.....                | July 1-10.....      | 2      | 1       |  |
| Fayoum.....            | May 26-June 30...   | 112    | 45      |  |
| Do.....                | July 1-Aug. 3....   | 9      | 2       |  |
| Galioubeh.....         | June 7.....         | 1      |         |  |
| Girgeh.....            | June 9-21.....      | 3      | 1       |  |
| Do.....                | July 7-10.....      | 7      | 7       |  |
| Menoufieh.....         | June 12-30.....     | 9      | 4       |  |
| Do.....                | July 1-31.....      | 5      | 3       |  |
| Minieh.....            | May 29-June 30...   | 37     | 14      |  |
| Do.....                | July 3-10.....      | 5      | 2       |  |
| <b>Great Britain:</b>  |                     |        |         |  |
| Bristol.....           | Aug. 18-31.....     | 3      |         |  |
| Hull.....              | Aug. 19-31.....     | 2      | 1       |  |
| Liverpool.....         | Sept. 22-Oct. 6.... | 6      | 3       |  |
| <b>Greece:</b>         |                     |        |         |  |
| Island of Chios—       |                     |        |         |  |
| Mitylene.....          | Sept. 29.....       |        |         | Present.   |
| Volo.....              | do.....             |        |         | Slight epidemic. Epidemic declared extinct Nov. 1, 1916.   |
| <b>India.....</b>      |                     |        |         | May 7-Sept. 16, 1916: Cases, 30,758; deaths, 21,878. <sup>1</sup>  |
| Bassein.....           | Apr. 23-Sept. 2.... |        | 251     |  |
| Bombay.....            | May 14-July 1....   | 290    | 264     |  |
| Do.....                | July 2-Sept. 23...  | 139    | 109     |  |
| Calcutta.....          | May 7-July 1....    |        | 14      |  |
| Henzada.....           | Apr. 23-July 1....  |        | 14      |  |
| Do.....                | July 9-Aug. 5....   |        | 5       |  |
| Karachi.....           | May 14-July 1....   | 72     | 61      |  |
| Do.....                | July 2-Sept. 23...  | 11     | 12      |  |
| Madras Presidency..... | May 14-June 24...   | 139    | 94      |  |
| Do.....                | July 9-Sept. 16...  | 1,694  | 1,120   |  |
| Mandalay.....          | May 14-June 3....   |        | 1       |  |
| Moulmein.....          | Apr. 23-June 10...  |        | 37      |  |
| Do.....                | July 2-Sept. 2....  |        | 76      |  |
| Pegu.....              | June 11-July 15...  |        | 3       |  |
| Pr. ma.....            | Apr. 23-May 20...   |        | 1       |  |
| Do.....                | July 2-Sept. 2....  |        | 71      |  |
| Rangoon.....           | Apr. 23-July 1....  | 467    | 440     | Apr. 16-22, 1916: Cases, 54;   |
| Do.....                | July 2-Sept. 16...  | 279    | 255     | deaths, 52.  |
| Toungoo.....           | June 25-July 1....  |        | 2       |  |
| Do.....                | July 9-Sept. 2....  |        | 15      |  |

<sup>1</sup> Reports for weeks ended May 20 and 27, 1915, not received.

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from July 1 to Nov. 17, 1916—Continued.

### PLAGUE—Continued.

| Place.                 | Date.                 | Cases. | Deaths. | Remarks.   |
|------------------------|-----------------------|--------|---------|--|
| Indo-China.....        |                       |        |         | Dec. 1-31, 1915: Cases, 90; deaths, 70. Jan. 1-Mar. 31, 1916: Cases, 290; deaths, 191. |
| Provinces—             |                       |        |         |  |
| Anam.....              | Dec. 1-31.....        | 36     | 20      |  |
| Do.....                | Jan. 1-Mar. 31.....   | 131    | 93      |  |
| Cambodia.....          | Dec. 1-31.....        | 27     | 36      |  |
| Do.....                | Jan. 1-Feb. 29.....   | 77     | 71      |  |
| Cochin-China.....      | Dec. 1-31.....        | 4      | 1       |  |
| Do.....                | Jan. 1-Mar. 31.....   | 82     | 27      |  |
| Tonkin.....            | Dec. 1-31.....        | 23     | 23      |  |
| Saigon.....            | May 15-July 2.....    | 55     | 30      |  |
| Do.....                | July 24-Sept. 2.....  | 16     | 7       |  |
| Java:                  |                       |        |         |  |
| Residences—            |                       |        |         |  |
| Kediri.....            | Apr. 9-May 19.....    | 18     | 18      |  |
| Do.....                | July 22-28.....       | 2      | 2       |  |
| Paserocean.....        | Apr. 9-June 30.....   | 13     | 12      |  |
| Do.....                | July 1-28.....        | 4      | 4       |  |
| Surabaya.....          | Apr. 9-June 30.....   | 78     | 25      |  |
| Do.....                | July 1-Aug. 4.....    | 14     | 13      |  |
| Surakarta.....         | Apr. 9-June 30.....   | 15     | 24      |  |
| Japan:                 |                       |        |         |  |
| Taiwan—                |                       |        |         |  |
| Tamsui.....            | July 15-Sept. 23..... | 3      | 3       |  |
| Yokkaichi.....         | Oct. 19.....          |        |         |  |
| Mauritius.....         | Apr. 15-June 21.....  | 6      | 8       |  |
| Persia:                |                       |        |         |  |
| Recht.....             | May 2-19.....         | 20     | 14      |  |
| Siam:                  |                       |        |         |  |
| Bangkok.....           | Apr. 30-July 1.....   | 66     | 59      |  |
| Do.....                | July 2-Sept. 18.....  | 46     | 39      |  |
| Straits Settlements:   |                       |        |         |  |
| Singapore.....         | Apr. 30-July 1.....   | 5      | 1       |  |
| Do.....                | July 2-Sept. 2.....   | 2      | 4       |  |
| Union of South Africa: |                       |        |         |  |
| Orange Free State..... | Jan. 23-Mar. 26.....  | 36     | 23      |  |

### SMALLPOX.

|                        |                      |     |    |                                   |
|------------------------|----------------------|-----|----|-----------------------------------|
| Australia:             |                      |     |    | Aug. 4-Sept. 15, 1916: Cases, 11. |
| New South Wales.....   |                      |     |    |                                   |
| Angledool.....         | July 21-Aug. 3.....  | 1   |    |                                   |
| Barren Junction.....   | Sept. 1-15.....      | 1   |    |                                   |
| Guildford.....         | June 9-22.....       | 2   |    |                                   |
| Lake Macquarie.....    | Aug. 4-17.....       | 2   |    |                                   |
| Narrabri.....          | May 26-June 7.....   | 8   |    |                                   |
| Do.....                | July 7-Aug. 31.....  | 26  |    |                                   |
| Swansea.....           | Aug. 4-16.....       | 1   |    |                                   |
| Sydney.....            | June 23-30.....      | 1   |    |                                   |
| Do.....                | July 1-Aug. 3.....   | 4   |    |                                   |
| Tamworth.....          | June 9-22.....       | 1   |    |                                   |
| Do.....                | July 7-20.....       | 1   |    |                                   |
| Walgett.....           | July 21-Aug. 3.....  | 6   |    |                                   |
| Austria-Hungary:       |                      |     |    |                                   |
| Austria.....           |                      |     |    |                                   |
| Galicja, Province..... | Apr. 23-July 1.....  | 495 |    |                                   |
| Do.....                | July 2-22.....       | 88  |    |                                   |
| Prague.....            | July 2-Sept. 9.....  | 6   | 2  |                                   |
| Vienna.....            | May 27-July 1.....   | 4   | 1  |                                   |
| Do.....                | July 9-Aug. 5.....   | 3   |    |                                   |
| Hungary—               |                      |     |    |                                   |
| Budapest.....          | May 21-July 1.....   | 38  | 15 |                                   |
| Do.....                | July 2-Sept. 9.....  | 1   | 1  |                                   |
| Brazil:                |                      |     |    |                                   |
| Bahia.....             | July 2-Aug. 26.....  | 8   | 8  |                                   |
| Para.....              | July 2-8.....        |     | 4  |                                   |
| Rio de Janeiro.....    | Apr. 9-June 17.....  | 94  | 18 |                                   |
| Do.....                | July 9-Sept. 30..... | 142 | 31 |                                   |
| Santos.....            | May 8-14.....        |     | 1  |                                   |
| British East Africa:   |                      |     |    |                                   |
| Mombassa.....          | Apr. 24-May 31.....  | 4   | 2  |                                   |
| Do.....                | July 1-31.....       |     | 1  |                                   |

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from July 1 to Nov. 17, 1916—Continued.

### SMALLPOX—Continued.

| Place.                        | Date.               | Cases. | Deaths. | Remarks.  |
|-------------------------------|---------------------|--------|---------|---|
| <b>Canada:</b>                |                     |        |         |   |
| Ontario—                      |                     |        |         |   |
| Fort William and Port Arthur. | July 9-15.....      | 1      |         |   |
| Niagara Falls.....            | July 2-8.....       | 1      |         |   |
| Toronto.....                  | June 25-July 29...  | 3      |         |   |
| <b>Ceylon:</b>                |                     |        |         |   |
| Colombo.....                  | May 7-June 3.....   | 4      |         |   |
| <b>China:</b>                 |                     |        |         |   |
| Amoy.....                     | Aug. 13-19.....     |        |         | Present in vicinity.  |
| Antung.....                   | May 22-June 18....  | 2      | 1       |   |
| Canton.....                   | Aug. 1-10.....      |        | 1       |   |
| Chungking.....                | May 7-June 24.....  |        |         |   |
| Do.....                       | July 2-Sept. 23.... |        |         | Present.  |
| Dairen.....                   | May 21-July 1.....  | 2      | 1       | Do.   |
| Do.....                       | July 16-Aug. 26.... | 3      | 2       |   |
| Foochow.....                  | May 7-27.....       |        |         | Do.   |
| Do.....                       | July 2-Aug. 5.....  |        |         | Do.   |
| Harbin.....                   | May 2-June 18....   | 3      | 1       |   |
| Do.....                       | July 9-Aug. 13....  | 3      | 2       |   |
| Hongkong.....                 | May 7-June 24.....  | 68     | 50      | Mar. 19-25: Cases, 16; deaths, 13.  |
| Do.....                       | July 28-Sept. 30..  | 30     | 27      |   |
| Nanking.....                  | June 11-Aug. 19.... |        |         | Do.   |
| Tientsin.....                 | May 14-July 1.....  | 45     | 11      |   |
| Do.....                       | July 2-Sept. 9..... | 4      | 1       |   |
| <b>Cuba:</b>                  |                     |        |         |   |
| Cienfuegos.....               | Sept. 24-30.....    | 2      |         |   |
| <b>Egypt:</b>                 |                     |        |         |   |
| Alexandria.....               | May 28-June 17....  | 4      | 2       |   |
| Cairo.....                    | Jan. 22-June 10..   | 206    | 74      |   |
| Port Said.....                | Mar. 12-June 3....  | 7      | 7       |   |
| <b>France:</b>                |                     |        |         |   |
| Paris.....                    | May 14-July 1.....  | 9      |         |   |
| Do.....                       | July 2-8.....       | 1      |         |   |
| <b>Germany:</b>               |                     |        |         |   |
| Breslau.....                  | May 21-27.....      | 1      |         |   |
| Hamburg.....                  | June 11-17.....     | 1      |         |   |
| Konigsburg.....               | July 2-Sept. 2....  | 4      |         |   |
| <b>Great Britain:</b>         |                     |        |         |   |
| Cardiff.....                  | June 4-17.....      | 1      | 1       |   |
| do.....                       | .....               | 1      |         |   |
| Southampton.....              | July 31-Aug. 5....  | 1      |         |   |
| <b>Greece:</b>                |                     |        |         |   |
| Athens.....                   | Apr. 1-June 13....  | 178    | 37      |   |
| Do.....                       | July 9-23.....      |        |         | Present. Estimated occurrence, 10 cases weekly.                                       |
| <b>India:</b>                 |                     |        |         |   |
| Bassein.....                  | May 7-June 10....   |        | 2       |   |
| Bombay.....                   | May 14-July 1.....  | 153    | 79      |   |
| Do.....                       | July 2-Sept. 23.... | 56     | 36      |   |
| Calcutta.....                 | May 7-June 3.....   |        | 3       |   |
| Do.....                       | July 2-Aug. 5.....  |        | 2       |   |
| Karachi.....                  | Aug. 6-Sept. 2....  | 5      | 4       |   |
| Madras.....                   | May 14-July 1.....  | 139    | 42      |   |
| Do.....                       | July 2-Sept. 16.... | 118    | 53      |   |
| Rangoon.....                  | Apr. 23-July 1....  | 260    | 135     |   |
| Do.....                       | July 2-Sept. 16.... | 17     | 6       |   |
| <b>Indo-China:</b>            |                     |        |         |   |
| Provinces—                    |                     |        |         |   |
| Anam.....                     | Dec. 1-31.....      | 48     |         | Dec. 1-31, 1915: Cases, 74; deaths, 14. Jan. 1-Mar. 31, 1916: Cases, 399; deaths, 27. |
| Do.....                       | Jan. 1-Mar. 31....  | 68     | 5       |   |
| Cambodia.....                 | Dec. 1-31.....      | 19     | 13      |   |
| Do.....                       | Jan. 1-Mar. 31....  | 38     | 14      |   |
| Cochin China.....             | Dec. 1-31.....      | 1      | 1       |   |
| Do.....                       | Feb. 1-Mar. 31....  | 23     | 2       |   |
| Tonkin.....                   | Dec. 1-31.....      | 6      | 6       |   |
| Do.....                       | Jan. 1-Mar. 31....  | 270    |         |   |
| Saigon.....                   | July 24-Aug. 13.... | 4      | 4       |   |
| <b>Japan:</b>                 |                     |        |         |   |
| Kobe.....                     | May 29-June 25....  | 24     | 4       |   |
| Do.....                       | July 24-Sept. 3.... | 11     | 2       |   |
| Nagasaki.....                 | June 26-July 2....  | 1      | 1       |   |

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from July 1 to Nov. 17, 1916—Continued.**

**SMALLPOX—Continued.**

| Place.                 | Date.           | Cases. | Deaths. | Remarks.                         |
|------------------------|-----------------|--------|---------|----------------------------------|
| Java                   |                 |        |         | East Java, Apr. 8-June 30, 1916: |
| Batavia                | Apr. 13-June 29 | 31     | 9       | Cases, 88; deaths, 11. July 1-   |
| Do.                    | June 30-July 13 | 6      | 4       | Aug. 4: Cases, 42; death, 1.     |
| Samarang               | May 13-19       | 2      | 2       | Mid-Java, Apr. 1-June 30, 1916:  |
| Surabaya               | May 9-June 16   | 2      | 1       | Cases, 233; deaths, 47. July 1-  |
|                        |                 |        |         | Aug. 4: Cases, 56; deaths, 14.   |
|                        |                 |        |         | West Java, Apr. 13-June 29:      |
|                        |                 |        |         | Cases, 278; deaths, 59. June     |
|                        |                 |        |         | 30-Aug. 17: Cases, 253; deaths,  |
|                        |                 |        |         | 34.                              |
| Malta                  | Apr. 1-30       | 7      | 1       |                                  |
| Mexico:                |                 |        |         |                                  |
| Aguascalientes         | June 12-July 2  |        | 33      |                                  |
| Do.                    | July 3-Oct. 1   |        | 44      |                                  |
| Federal District       | Oct. 15-21      | 8      |         |                                  |
| Frontera               | May 28-June 10  | 4      | 1       |                                  |
| Guadalajara            | June 11-17      | 35     | 9       |                                  |
| Laguna del Carmen      | Oct. 10         | 30     |         |                                  |
| Mazatlan               | May 31-June 6   |        | 4       |                                  |
| Mexico City            | Aug. 28-Oct. 14 | 69     |         |                                  |
| Tenosique              | June 14         |        |         | 175 miles south of Frontera:     |
| Vera Cruz              | June 4-July 2   |        | 9       | Epidemic among troops.           |
| Do.                    | July 3-Sept. 3  |        | 4       |                                  |
| Netherlands:           |                 |        |         |                                  |
| Amsterdam              | May 28-June 3   | 1      |         |                                  |
| Philippine Islands:    |                 |        |         |                                  |
| Manila                 | do.             | 1      |         |                                  |
| Do.                    | July 1-8        | 3      |         |                                  |
| Porto Rico             |                 |        |         | June 19-25, 1916: Cases, 33.     |
| Agua Buenas            | June 19-25      | 5      |         |                                  |
| Arecibo                | do.             | 2      |         |                                  |
| Do.                    | Aug. 7-13       | 1      |         |                                  |
| Bayamon                | June 19-July 2  | 2      |         |                                  |
| Naranjito              | June 26-July 2  | 4      |         |                                  |
| Rio Piedras            | do.             | 1      |         |                                  |
| San Juan               | do.             | 24     |         |                                  |
| Toa Alta               | do.             | 12     |         |                                  |
| Portugal:              |                 |        |         |                                  |
| Lisbon                 | May 21-July 1   | 15     |         |                                  |
| Do.                    | July 9-Aug. 26  | 9      |         |                                  |
| Russia:                |                 |        |         |                                  |
| Moscow                 | Apr. 30-July 1  | 222    | 59      |                                  |
| Do.                    | July 2-Sept. 2  | 82     | 143     |                                  |
| Petrograd              | Apr. 23-July 1  | 162    | 35      |                                  |
| Do.                    | July 2-Sept. 23 | 77     | 18      |                                  |
| Riga                   | Apr. 6-May 31   | 1      | 1       |                                  |
| Do.                    | July 1-22       | 2      |         | Apr. 1-30, 1916: 1 case.         |
| Do.                    |                 |        |         | June 1-30, 1916: 1 case.         |
| Siam:                  |                 |        |         |                                  |
| Bangkok                | May 24-30       | 2      |         |                                  |
| Spain:                 |                 |        |         |                                  |
| Cadiz                  | July 1-31       |        | 1       |                                  |
| Madrid                 | May 1-31        |        | 13      | June 1-30, 1916: Cases, 10.      |
| Do.                    | July 1-Sept. 30 |        | 60      |                                  |
| Malaga                 | May 1-31        |        | 7       |                                  |
| Seville                | May 1-June 30   |        | 5       |                                  |
| Do.                    | Aug. 1-31       |        | 4       |                                  |
| Valencia               | May 21-July 1   | 12     | 4       |                                  |
| Do.                    | July 8-Sept. 30 | 9      |         |                                  |
| Straits Settlements:   |                 |        |         |                                  |
| Penang                 | May 14-20       | 3      |         |                                  |
| Singapore              | Apr. 30-July 1  | 5      | 3       |                                  |
| Do.                    | July 16-Aug. 25 | 5      | 2       |                                  |
| Switzerland:           |                 |        |         |                                  |
| Basel                  | May 13-July 1   | 29     |         |                                  |
| Do.                    | July 2-Sept. 30 | 14     |         |                                  |
| Turkey in Asia:        |                 |        |         |                                  |
| Trebizond              | Sept. 17-23     | 1      |         |                                  |
| Union of South Africa: |                 |        |         |                                  |
| Durban                 | June 1-30       | 1      |         |                                  |
| Johannesburg           | May 28-July 1   | 3      |         |                                  |
| Do.                    | July 2-Sept. 9  | 15     |         |                                  |
| Venezuela:             |                 |        |         |                                  |
| Maracaibo              | Sept. 2-22      |        | 3       |                                  |

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.****Reports Received from July 1 to Nov. 17, 1916—Continued.****SMALLPOX—Continued.**

| Place.                | Date.       | Cases. | Deaths. | Remarks.   |
|-----------------------|-------------|--------|---------|--|
| Zanzibar:             |             |        |         |  |
| Zanzibar.....         | May 12..... | 1      |         | From s. s. Dilmara.  |
| At sea:               |             |        |         |  |
| Steamship Katuna..... |             |        |         | Case of smallpox landed at Colombo, Ceylon, May 12, 1916. Vessel arrived May 27, at Fremantle, Australia, was ordered to quarantine, and proceeded to Melbourne direct for disinfection. |

**TYPHUS FEVER.**

|                             |                       |       |     |  |   |
|-----------------------------|-----------------------|-------|-----|--|---|
| Austria-Hungary:            |                       |       |     |  |   |
| Austria.....                |                       |       |     |  | Feb. 13-July 1, 1916: Cases, 2,473.         |
| Galicia, province.....      | Apr. 22-July 1.....   | 1,457 |     |  | July 2-22, 1916: Cases, 513.                |
| Do.....                     | July 2-22.....        | 419   |     |  |   |
| Vienna.....                 | July 2-15.....        | 3     |     |  |   |
| Bosnia-Herzegovina.....     | June 18-30.....       | 21    |     |  |   |
| Do.....                     | July 1-7.....         | 4     |     |  |   |
| Hungary:                    |                       |       |     |  | Feb. 21-Mar. 5, 1916: Cases, 35; deaths, 7. |
| Budapest.....               | May 21-June 24.....   | 14    | 2   |  |   |
| Do.....                     | July 2-Sept. 16.....  | 7     | 1   |  |   |
| Belgium:                    |                       |       |     |  |   |
| Liege.....                  | Aug. 12-19.....       |       | 1   |  |   |
| Canada:                     |                       |       |     |  |   |
| New Brunswick—              |                       |       |     |  |   |
| St. John.....               | July 29.....          | 4     |     |  |   |
| Canary Islands:             |                       |       |     |  |   |
| Santa Cruz de Tenerife..... | July 31-Aug. 5.....   |       | 1   |  |   |
| China:                      |                       |       |     |  |   |
| Antung.....                 | June 19-25.....       | 1     | 1   |  |   |
| Do.....                     | July 22-Sept. 10..... | 4     |     |  |   |
| Harbin.....                 | May 2-8.....          | 1     |     |  |   |
| Do.....                     | July 3-16.....        | 1     |     |  |   |
| Tientsin.....               | May 14-20.....        |       | 1   |  |   |
| Egypt:                      |                       |       |     |  |   |
| Alexandria.....             | May 21-July 1.....    | 235   | 93  |  |   |
| Do.....                     | July 2-Sept. 23.....  | 163   | 71  |  |   |
| Cairo.....                  | Jan. 8-June 10.....   | 1,124 | 507 |  |   |
| Port Said.....              | Mar. 18-June 10.....  | 52    | 26  |  |   |
| Germany:                    |                       |       |     |  |   |
| Aix la Chapelle.....        | July 2-Oct. 7.....    |       | 3   |  |   |
| Barmen.....                 | Aug. 13-19.....       |       | 1   |  |   |
| Berlin.....                 | June 18-24.....       |       | 1   |  |   |
| Do.....                     | July 16-Oct. 30.....  |       | 13  |  |   |
| Bremen.....                 | July 16-Sept. 2.....  | 12    | 2   |  |   |
| Breslau.....                | Aug. 15-21.....       | 3     |     |  |   |
| Chemnitz.....               | May 28-June 3.....    |       | 1   |  |   |
| Frankfort on the Main.....  | June 11-17.....       |       | 1   |  |   |
| Do.....                     | Aug. 27-Sept. 2.....  |       | 1   |  |   |
| Hanover.....                | May 7-27.....         | 4     | 1   |  |   |
| Do.....                     | July 1-Aug. 5.....    | 7     | 2   |  |   |
| Königsberg.....             | June 4-10.....        | 1     |     |  |   |
| Do.....                     | July 9-Oct. 14.....   | 11    | 5   |  |   |
| Leipzig.....                | June 4-10.....        |       | 1   |  |   |
| Stettin.....                | July 16-Aug. 19.....  |       | 3   |  |   |
| Great Britain:              |                       |       |     |  |   |
| Belfast.....                | July 16-Sept. 9.....  | 12    | 4   |  |   |
| Dublin.....                 | Oct. 1-7.....         | 2     |     |  |   |
| Dundee.....                 | Oct. 8-14.....        | 1     | 1   |  |   |
| Glasgow.....                | July 9-Oct. 21.....   | 10    | 7   |  |   |
| Greece:                     |                       |       |     |  |   |
| Athens.....                 | July 24-Aug. 21.....  |       | 2   |  |   |
| Saloniki.....               | May 1-July 2.....     |       | 61  |  |   |
| Do.....                     | July 3-Sept. 10.....  |       | 160 |  |   |
| Italy:                      |                       |       |     |  |   |
| Palermo.....                | June 29-July 5.....   | 1     | 1   |  |   |
| Jamaica:                    |                       |       |     |  |   |
| Port Antonio.....           | Oct. 22-28.....       | 1     | 1   |  |   |
| Japan:                      |                       |       |     |  |   |
| Hakodate.....               | July 16-22.....       | 2     |     |  |   |
| Tokyo.....                  | May 22-July 25.....   | 114   |     |  | Jan. 1-July 25, 1916: Cases, 468.           |

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

### Reports Received from July 1 to Nov. 17, 1916—Continued.

#### TYPHUS FEVER—Continued.

| Place.           | Date.           | Cases. | Deaths. | Remarks.  |
|------------------|-----------------|--------|---------|---|
| Java             |                 |        |         | East Java, Apr. 8-June 30, 1916: Cases, 24; deaths, 9. July 22-Aug. 4; Case, 1. Mid-Java, Apr. 1-June 30, 1916: Cases, 76; deaths, 18. July 1-Aug. 4: Cases, 26; deaths, 4. West Java, Apr. 13-June 29, 1916: Cases, 118; deaths, 18. July 7-Aug. 17: Cases, 37; deaths, 7. |
| Batavia          | Apr. 13-June 29 | 46     | 13      |   |
| Do               | July 7-27       | 24     | 4       |   |
| Samarang         | Apr. 1-June 30  | 20     | 8       |   |
| Surabaya         | Apr. 8-May 12   | 6      | 6       |   |
| Do               | July 1-7        | 1      |         |   |
| Mexico:          |                 |        |         |   |
| Aguascalientes   | June 12-July 2  |        | 32      |   |
| Do               | July 3-Oct. 1   |        | 181     |   |
| Chihuahua        | Sept. 7         | 40     |         | Sept. 20: Estimated number of cases, 100. Oct. 31: Epidemic. Present.   |
| Durango          | Sept. 1         |        |         |   |
| Federal District | Oct. 15-21      | 331    |         |   |
| Juarez           | Sept. 7-20      | 18     |         |   |
| Guadalajara      | June 11-17      | 4      | 1       |   |
| Leon             | Oct. 25         |        |         | Present.  |
| Mexico City      | Aug. 23-Oct. 11 | 1,519  |         |   |
| Nuevo Larado     | Oct. 28         | 1      |         | In person from Guanajuato. Epidemic.  |
| San Luis Potosi  | Oct. 21         |        |         |   |
| Tampico          | Oct. 11-30      |        | 1       |   |
| Vera Cruz        | June 4-9        |        | 2       |   |
| Do               | July 24-Oct. 15 |        | 9       |   |
| Zacatecas, State |                 |        |         | Sept. 7-Oct. 25: Prevalent.   |
| Netherlands:     |                 |        |         |   |
| Rotterdam        | July 30-Aug. 5  |        | 1       |   |
| Norway:          |                 |        |         |   |
| Bergen           | do              |        | 1       |   |
| Russia:          |                 |        |         |   |
| Moscow           | Apr. 30-July 1  | 909    | 52      |   |
| Do               | July 9-Sept. 2  | 299    | 31      |   |
| Petrograd        | Apr. 23-July 1  | 59     | 13      |   |
| Do               | July 3-Sept. 2  | 32     | 5       |   |
| Riga             |                 |        |         | June 1-30, 1916: 1 case.  |
| Spain:           |                 |        |         |   |
| Madrid           | Aug. 1-Sept. 30 |        | 2       |   |
| Sweden:          |                 |        |         |   |
| Stockholm        | June 21-27      | 1      |         |   |
| Do               | July 9-Oct. 7   | 9      |         |   |
| Switzerland:     |                 |        |         |   |
| Basel            | July 24-Aug. 26 | 8      |         |   |
| Geneva           | May 21-27       | 1      |         |   |
| Zurich           | July 23-Sept. 2 | 5      |         |   |
| Turkey in Asia:  |                 |        |         |   |
| Adana            | May 13-June 25  |        |         | Present.  |
| Do               | July 2-8        |        |         | Do.   |
| Bagdad           | June 27         |        |         | Do.   |
| Haifa            | Apr. 24-June 11 | 35     | 13      |   |
| Do               | July 10-Sept. 3 | 78     | 34      |   |
| Jaffa            | Apr. 23-June 25 |        | 47      | Mar. 19-Apr. 1: Present. Apr. 2-8: Cases, 3.  |
| Mersina          | May 7-June 25   | 9      |         |   |
| Do               | July 2-8        |        |         | Do.   |
| Tarsus           | May 13-27       |        |         | Present.  |
| Do               | July 2-8        |        |         | Do.   |
| Trebizond        | Aug. 6-Sept. 30 | 3      | 3       |   |

#### YELLOW FEVER.

|           |                 |    |    |          |
|-----------|-----------------|----|----|----------|
| Barbados  | Sept. 17-30     | 6  | 5  |          |
| Ecuador:  |                 |    |    |          |
| Babahoyo  | June 1-30       | 2  |    |          |
| Guayaquil | May 1-June 30   | 76 | 51 |          |
| Do        | July 1-Aug. 31  | 73 | 44 |          |
| Milagro   | June 1-30       | 1  | 1  |          |
| Do        | July 1-Aug. 31  | 3  | 1  |          |
| Naranjito | Aug. 1-31       | 2  | 1  |          |
| Mexico:   |                 |    |    |          |
| Campeche  | Sept. 15        | 1  | 1  |          |
| Merida    | July 1-Oct. 21  | 29 | 9  |          |
| Progreso  | Aug. 13-Oct. 21 | 2  | 1  |          |
| Tuxpan    | Oct. 31         |    |    | Present. |

# **SANITARY LEGISLATION.**

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## **STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.**

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### **DISTRICT OF COLUMBIA.**

#### **Foodstuffs—Inspection—Condemnation of Unwholesome—Duties of Food Inspectors. (Reg. Commissioners, Oct. 17, 1916.)**

That section 4 of "An ordinance to provide for the inspection of streets, food, live stock, fish, and other marine products in the cities of Washington and Georgetown, and to define the duties of inspectors and other officers of the board of health," is hereby amended by striking out the words "and seize, and" after the word "condemn" and inserting in lieu thereof the words "denature or seize, or," by inserting the word "denaturing" after the word "condemnation," and by striking out the word "and" after the word "seizure" and inserting in lieu thereof the word "or," so that said section shall read as follows:

"SEC. 4. That it shall be the duty of each inspector of food to attend the market or markets within his inspection district every morning, at the time when sales commence, and carefully inspect all meats, fowl, game, and vegetables offered for sale, and condemn, denature, or seize, or cause to be removed such as may be diseased or from any other cause rendered unfit for food. He shall also visit, as early as practicable each day, every green grocery or other place within his district where articles of food are kept for sale, and perform his duty of inspection, condemnation, denaturing, seizure, or removal as hereinbefore prescribed. He shall report his official proceedings daily to the health officer, and in the performance of his duties shall be under the direction of said officer; and the inspectors of food shall perform such other duties and special inspections as may be directed by the health officer."

# MUNICIPAL ORDINANCES, RULES, AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

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## CANTON, OHIO.

### Privies and Cesspools—Construction—Permit Required—Temporary Privies. (Reg. Bd. of H., Oct. 10, 1916.)

SECTION 1. No person shall construct any privy vault or cesspool within the limits of the city of Canton, except as provided for in the following section, without first obtaining from the board of health a written permit so to do, and permits shall be granted only to applicants who are not abutting property owners upon streets that have sewers, and upon the further condition that they faithfully observe the laws of the State of Ohio, the ordinances of the city of Canton, and the rules and regulations of the board of health relative to the construction of privy vaults and cesspools.

SEC. 2. It shall be the duty of all contractors or persons in charge of the construction of any building within the limits of the city of Canton to provide temporary privy vaults for the use of workmen employed upon said building during the period of construction; one of said vaults shall be provided for each 25 men or less employed; said privy vault may be constructed without a permit from the board of health; said privy vault shall contain a water-tight metal receptacle in which all excreta may be deposited, and said receptacle shall be placed in a box constructed in such a manner as to be fly tight and so that the receptacle may be removed therefrom, and such box shall at all times when not in use be covered with a fly-tight lid. It shall be the duty of such contractor or person constructing said privy vault to empty said metal receptacle at least once each day and to maintain such privy vault in a sanitary condition.

## GREENVILLE COUNTY, S. C.

### Health Officer—Appointment, Duties, and Salary. (Act 399, S. C. Gen. Assembly, Feb. 19, 1916.)

SECTION 1. *Health officer for Greenville County; compensation.*—That immediately upon the passage of this act the executive committee of the State board of health shall appoint a health officer for the county of Greenville who shall continue in office during the pleasure of said committee. Said officer shall receive an annual salary of \$1,800, payable monthly, \$300 per annum for traveling expenses, and \$200 per annum for equipment and supplies; the items of such expenditures to be approved by the secretary of said executive committee; the salary and expenditures to be paid out of the ordinary county funds.

SEC. 2. *Duties.*—That it shall be the duty of the county health officer to inspect frequently the sanitary conditions throughout the county and to inform the people by private and public communications as to the need and means of promoting health and preventing disease, and especially to recommend and enforce proper measures for the control and removal of epidemics of typhoid fever, meningitis, infantile paralysis, scarlet fever, smallpox, and any and

every other infectious or contagious disease. It shall further be his duty to discover, as far as practicable, every case of tuberculosis or other contagious or infectious disease in the county and endeavor to effect an isolation or segregation of such case or cases so as to prevent the spread of such disease, and wherever persons afflicted with such disease can not provide themselves with necessary care for the prevention of the spread of such disease it shall be the duty of the county health officer to endeavor to secure for such persons the care of the tuberculosis camp or of such other institution as may be available.

SEC. 3. *To examine children.*—That it shall further be the duty of said county health officer to examine all children in the county under the age of 12 years, unless they have been examined by a physician, and to ascertain whether they have physical defects which might be remedied by treatment, and in every case where he discovers the need of treatment he shall communicate the facts to the parents, guardian, or other custodian of such child.

SEC. 4. *Immediately effective; inconsistent acts repealed.*—That this act shall go into effect immediately upon its passage, and that all acts and parts of acts inconsistent herewith, particularly "An act to provide for the establishment of a county board of health for the county of Greenville," acts of 1914, page 663, be, and the same are hereby, repealed.

## KALAMAZOO, MICH.

### Sewers—Connections with. (Ord. 383, Sept. 5, 1916.)

SECTION 1. Sections 23, 24, and 25 of ordinance No. 154, the same being an ordinance relative to public health, is [sic] hereby amended to read as follows:

SEC. 23. Any person, persons, partnership, or corporation owning or occupying premises adjacent to a public sewer, and not connected therewith at the time of the passage of this ordinance, and any person, persons, firm, or corporation owning or occupying premises abutting or fronting any street or alley in which a public sewer shall hereafter be built, shall connect said premises with such public sewer in accordance with the provisions of ordinance No. 153, relative to main, lateral, connecting, and private sewers, and taxation for sewer purposes, or in such other time and manner as the board of health may order.

SEC. 24. Any person, persons, firm, or corporation who shall be either the owner or occupant of premises abutting or fronting any street or alley in which a public sewer exists or in which a public sewer shall hereafter be built, who shall neglect or refuse to connect his, her, their, or its premises with the public sewer after having been ordered so to do by the board of health and poor commissioners of said city, shall be deemed guilty of a misdemeanor, and upon conviction thereof in a court of competent jurisdiction shall be punished by a fine of not exceeding \$100 and costs of prosecution, or imprisonment in the county jail of Kalamazoo County for a period not exceeding 90 days, or both such fine and imprisonment, in the discretion of the court; and in default of the payment of such fine and costs the court may order the imprisonment of such person in said county jail until such fine is paid, but not exceeding 90 days.

SEC. 25. Whenever the owner or occupant of any premises shall have been ordered by the board of health and poor commissioners to connect said premises with the public sewer it shall be the duty of the health officer to notify the city engineer of the action of the board of health and poor commissioners and of the date within which said connection shall be made, which date shall be at least 30 days from the date of service of the order

by said board of health and poor commissioners on the said owner or occupant. At the time fixed by the board of health and poor commissioners for such sewer connection the city engineer shall report to the board of health and poor commissioners whether such sewer connection has been made as ordered.

If it shall appear from the report of the city engineer that such owner or occupant has failed to comply with the order of the board of health and poor commissioners it shall be the duty of the health officer to immediately proceed against such owner or occupant as provided herein unless otherwise ordered by the board of health and poor commissioners.

### LINCOLN, ILL.

#### Visiting Nurse—Appointment, Duties, and Salary. (Ord. Oct. 2, 1916.)

SECTION 1. That the council shall appoint a person, to be designated a visiting nurse, who shall perform services under the general supervision of the department of public health and safety, for the promotion of health and suppression of disease, in said city of Lincoln. Such person shall perform any service for the promotion of health and suppression of disease that may be required of her by the board of health or the medical member of said board. No person shall be appointed by the council to the position herein provided for unless she shall have made some special study of, and shall have a fair knowledge of, the duties of a trained nurse, and shall have had some practical experience in such work.

The compensation to be paid by the city of Lincoln to such person so appointed is hereby fixed at \$15 a month, payable in the same manner as other city employees. The person when appointed shall be, and is hereby, assigned to the department of public health and safety.

### LYNN, MASS.

#### Milk and Cream—Receptacles—Cleaning Required. (Reg. Bd. of H., Sept. 27, 1916.)

All persons having the possession or custody of bottles, cans, or other receptacles used in the sale, delivery, and transportation of milk, cream, skimmed milk, or buttermilk shall cause any such bottle, can, or receptacle to be cleaned immediately upon emptying the same; and no person shall deliver, receive, or have in his possession or custody any such bottle, can, or receptacle so used which has not been cleansed as aforesaid.

### ORANGE, N. J.

#### Communicable Diseases—Quarantine—Health Officer Authorized to Establish. (Ord. Aug. 22, 1916.)

SECTION 1. The health officer of this city shall have power to isolate or quarantine any person or persons, or any district or section of the city or any building therein whenever in his judgment it is necessary to do so to prevent the spread of any communicable disease, and he shall have power to make such rules and regulations as he may deem proper to enforce such isolation or quarantine.

SEC. 2. Any person or persons, or corporation who shall violate any of the rules and regulations made by the health officer as aforesaid shall forfeit and pay a penalty of \$20 for each offense.

**Communicable Diseases—Placarding. (Ord. Aug. 22, 1916.)**

**SECTION 1.** That section 78 of an ordinance entitled "The sanitary and plumbing code of the board of health of the city of Orange," adopted December 1, 1900, be, and the same is hereby, amended so as to read as follows:

**SEC. 78.** That the occupant of any dwelling house, store, shop, or other building, or of any room or rooms in any dwelling house, store, shop, or other building in the city of Orange, in which said dwelling house, store, or other building, or room or rooms there shall be any person or persons sick or infected with smallpox (including varioloid), diphtheria, scarlet fever, yellow fever, measles, infantile paralysis, epidemic cerebrospinal meningitis, or any other contagious or infectious disease that may be hereafter publicly declared by the health department of the city of Orange to be dangerous to the public health, shall put up and maintain in a conspicuous place on the front of said dwelling house, store, shop, or other building, so that the same can be readily seen and distinguished, a card or sign, on which the name of the disease shall be printed in plain letters not less than 2 inches in height, and shall keep the same so put up during all the time any person or persons so sick shall remain in said dwelling, store, shop, or other building, the same not to be removed except by order of the health officer; and no person or persons shall deface, injure or partially or entirely obscure or hide or cover or remove the same.

Any person or persons or corporation failing to comply with, violating, or offending against any of the provisions of this section shall forfeit and pay a penalty of \$50.

**PUEBLO, COLO.**

**Foodstuffs—Manufacture, Care, and Sale—Sanitary Regulation of Establishments and Vehicles. (Ord. 971, June 12, 1916.)**

**SECTION 1.** All animal, vegetable, or mineral materials, whether liquid, solid, or semisolid, that may be used for human consumption shall be considered as foodstuffs and included in the provisions of this ordinance.

**SEC. 2.** All buildings, rooms, storerooms, refrigerators, or other places where foodstuffs are prepared, held, sold, or offered for sale as a business, and all vehicles used in the transportation of food to and from such places shall at all times be maintained in a clean and sanitary condition. All windows, doors, or other openings in such places shall be screened with fly screen and maintained in good repair, and all floors, tables, benches, shelves, utensils and racks, machines, or other articles used in such places shall be maintained in a clean and sanitary condition and free from objectionable odors. A liberal supply of water for cleansing purposes shall be provided and convenient toilet arrangements maintained for the workers in such places. No common roller towels except sanitary paper roll and no common drinking cup shall be maintained in such places. All toilet rooms in such places shall be entirely inclosed by solid walls provided with close-fitting doors, shall be well lighted and ventilated and clean and free from odors at all times, and shall have direct connection with the outside building for the purpose of ventilation. Cuspidors shall be provided, and spitting is hereby prohibited in such places except in such receptacles.

**SEC. 3.** Live animals or fowls shall not be kept in the same building where foodstuffs are handled or stored except in accordance with the rules and regulations of the health department.

**SEC. 4.** All utensils, machines, racks, molds, trucks, tables, blocks, dishes, towels, napkins, table covers, aprons, jackets, and all other equipment or articles in use in the preparation, storage, serving, or distribution of foodstuffs

in such places shall be maintained in a clean and sanitary manner and shall be so frequently sterilized as to insure their cleanliness and sanitary condition. All foodstuffs that are liable to be contaminated by flies, insects, dust, and human handlings or by other means within such places shall be protected from all danger of such contamination in a manner and by such means as shall be directed by the rules and regulations of the health department. All persons engaged in the preparation, storage, or sale of foodstuffs in such places shall be free from infectious, communicable, or offensive diseases, and it shall be the duty of the persons in charge of any such place to notify the health department when such diseases exist. No person shall be employed in such places or engaged in such work who is in an unclean or filthy condition of person or clothing.

SEC. 5. No foodstuffs shall be prepared, sold, offered for sale, or stored in such places that are unwholesome, putrid, decomposing, or that in any way so contaminated as to be unsafe for human consumption, nor shall any foodstuffs be misbranded or adulterated in such a manner as to deceive the purchaser. All putrid or contaminated foodstuffs in such places, or foodstuffs dangerous to public health, or foodstuffs coming from infected districts, sources, or places, or foodstuffs which are part of shipments coming from such districts, sources, or places, or foodstuffs forming part of shipments known to be putrid, contaminated, or dangerous to public health, may be seized by the health department for examination or destruction, or upon order of health department such foodstuffs shall be held by persons in possession of the same pending investigation and further order of the health department.

SEC. 6. All creameries and cheese factories where the manufacture of cheese or butter for sale is carried on shall be provided with apartments especially equipped for the manufacturing of such products. Such apartments shall have floors and walls so constructed as to be readily cleansed by washing with water and shall be equipped with an abundant supply of hot and cold water for cleansing purposes. All utensils, molds, machines, and other equipment that come in contact with the product shall be cleansed frequently with hot water and sterilized by means of boiling water, live steam, or other efficient method. No milk, cream, or other material shall be used in the manufacture of these products that is in any way contaminated or that may be dangerous to the health of the consumer.

SEC. 7. All ice cream shall be made from milk or cream that has been pasteurized or obtained from cows that are free from tuberculosis, as shown by the tuberculin test. No material detrimental to the health shall be used in the making of ice cream. The apartments used in the manufacture of ice cream shall have hard, smooth floors and walls that will permit of easy cleansing by means of water, and all utensils, machines, molds, or other equipment that comes in contact with the product shall be frequently washed with hot water and sterilized by means of boiling water, steam, or other efficient method. No ice cream that has been melted shall be frozen a second time.

SEC. 8. All sausage rooms, or rooms where meat products are prepared as a business, and all kitchens of public eating houses, restaurants, and hotels, shall have hard, smooth floors and walls and be so constructed as to be readily cleansed by means of water, and all racks, tables, blocks, knives, saws, cleavers, ranges, pots, pans, machines, and other equipment shall be frequently washed with hot water and maintained in a clean and sanitary condition. Sawdust or similar material shall not be used on the floor of such rooms.

SEC. 9. All parties selling foodstuffs from wagons or other movable stands shall protect these goods from the effects of weather conditions, and also from

flies, dust, or other contamination, and all such foods shall be clean and wholesome, and all boxes, wagons, and other equipment shall be clean and sanitary.

SEC. 10. The department of health may at any time make rules and regulations for the better enforcement of this ordinance and for safeguarding of the foodstuffs, and shall have the right to inspect all premises, rooms, store buildings, foods, methods of preparation, cleansing and sterilization to the end that the foodstuffs offered for sale may be clean, wholesome, and free from disease-producing materials or organisms. Samples of any product shall be furnished for examination on request of the health department.

SEC. 12 [sic]. The provisions of this ordinance shall be effective within the city of Pueblo and within 1 mile of the outer boundaries thereof.

SEC. 13. Any person, firm, or corporation violating any provisions of this ordinance shall be guilty of a misdemeanor and shall be fined not less than \$10 nor more than \$300.

### QUINCY, ILL.

#### Milk and Cream—Production, Care, and Sale. (Ord. 220, Sept. 16, 1916.)

SECTION 1. No person, firm, or corporation shall sell or offer for sale or deliver any milk or cream within the city of Quincy, Ill., without first having obtained a license so to do in the manner hereinafter provided.

SEC. 2. Every person, firm, or corporation desiring such license or to engage in the sale of or the delivery of milk or of cream in said city shall first make application therefor in writing to the clerk of said city, which application shall set forth with reasonable exactness the name and place of residence of the applicant, the exact location or place from which the applicant obtains or is to obtain his milk and cream, and if the applicant is not a producer of milk and cream then the name of the person or persons, firm, or corporation from whom he obtains or is to obtain his milk and cream for sale or distribution, and, if said applicant is a producer of milk and cream, the number of cows in his dairy herd, or, if he is not a producer of milk and cream, the number of cows in the dairy herd of the person or persons, firm, or corporation from whom he obtained or is to obtain his milk and cream, and said application shall further set forth the manner in which the applicant intends to dispose of his milk, when licensed, according to the provisions of this ordinance, and shall be signed and sworn to by the applicant; and upon the payment of the license fee of 50 cents the clerk shall issue such license under which such person, firm, or corporation may operate, subject to the ordinances of the said city now and hereafter in force and subject to the rules and regulations now and hereafter provided and laid down by the board of health regarding the sale and delivery of milk and cream, the sanitary conditions under which milk and cream shall be produced, stored, and delivered, and the quality of such milk and cream. Such application shall be kept on file in the office of said clerk, and the name and address of the licensee shall be registered and kept on the stub of the license books from which such license was issued, and the same shall be subject to inspection at all times. Such license shall be valid and effective from the date of same until the 30th day of June next following, and a new application and fee and license shall be required for each license year. No such license shall be authority to any person, firm, or corporation, other than the person, firm, or corporation named therein, for the carrying on of such business. All such licenses shall be numbered consecutively in the order in which they are issued.

SEC. 3. Every such applicant, and every person, firm, or corporation from whom such applicant obtains or is to obtain milk or cream, shall permit the officers of the board of health of the city of Quincy to inspect the dairy and

dairy herd of such applicant, or the dairy herd and dairy of the person or persons, firm, or corporation from whom the applicant obtains or is to obtain milk or cream, together with all appliances and milk and cream vessels used therein, and any refusal upon the part of such applicant or upon the part of the person or persons, firm or corporation from whom such applicant obtains or is to obtain milk and cream, to permit the inspection above referred to shall be deemed a sufficient ground upon which to refuse the license applied for, and for like cause the mayor upon the recommendation of the commissioner of health may revoke the same after its issuance.

SEC. 4. Every licensee shall cause his or her name and his or her place of business and the number of his or her license to be placed in clear legible letters and figures at least 2½ inches in height, in a conspicuous place on the outer side of both sides of carriages, wagons, automobiles, motor vehicles, sleighs, or other vehicles used by him in the sale or distribution of milk within the corporate limits of the city of Quincy; and all licensees who sell milk from stores or shops shall keep their licenses constantly posted in a conspicuous place upon the wall of the room within which milk and cream is sold and delivered.

SEC. 5. No person shall bring into the city of Quincy for sale, or keep, have, or offer for sale or sell in said city any milk or cream contained in cans, bottles, or other receptacles, unless such cans, bottles, and other receptacles containing such milk or cream for sale shall be marked with a legible stamp, tag, or impression bearing the name of the owner of the cows from which such milk was drawn, giving the location of his dairy or of his place of business, including rural free delivery route or street number, if any.

SEC. 6. No person or dealer in milk and no agent or servant of such dealer shall give, furnish, sell or offer for sale, or deliver any milk, skimmed milk or cream in quantities of less than 1 gallon unless the same shall be kept, offered or exposed for sale, given away, sold or delivered in clean transparent sanitary glass bottles or other glass receptacles, the same to be sealed with a suitable cap or stopper. Said bottles or glass receptacles shall be sealed immediately after the filling of same, and the filling and sealing of the same shall be done only in a suitable milk house or creamery, the sanitary conditions of which have been approved by the commissioner of health or board of health. It shall be unlawful for any person delivering milk in the city of Quincy, Ill., to use the bottles, glass receptacles, or cans of any other licensee or upon which appears the name of any person, firm or corporation other than the dealer making the delivery.

SEC. 7. No milk or cream which is watered, adulterated, reduced, or changed in any respect by the addition of water or other substance, or by the removal of cream, and no milk which has been drawn from cows that are not free from all diseases dangerous to public health shall be brought into the city of Quincy or held, kept, sold, or offered for sale at any place in said city, nor shall any person, persons, or corporation keep, have, sell or offer for sale any such milk or cream in said city of Quincy: *Provided, however,* That milk from which any part of the cream has been removed may be sold in the manner hereinafter provided.

The term "adulterated milk" as used in this ordinance means:

First. Milk containing more than 88 per cent of water or fluids.

Second. Milk containing less than 12 per cent of milk solids.

Third. Milk containing less than 3 per cent fats.

Fourth. Milk drawn from animals within 15 days before or 5 days after parturition.

**Fifth.** Milk drawn from animals fed on distillery waste, or any substance in a state of fermentation or putrefaction or any other unwholesome food.

**Sixth.** Milk drawn from cows kept in a crowded or unhealthy condition, or from cows suffering with tuberculosis or any other contagious disease.

**Seventh.** Milk from which any part of the cream has been removed.

**Eighth.** Milk which has been diluted with water or any other fluid, or to which has been added, or into which has been introduced, any foreign substance whatever.

**Ninth.** Milk, the temperature of which is higher than 55° F., or which shall contain more than 200,000 bacteria per cubic centimeter.

**SEC. 8.** Notwithstanding the provisions of section 7 of this ordinance, milk from which the cream has been removed, if such milk is otherwise wholesome and unadulterated, may be sold as skimmed milk by licensed milk dealers, but only from vessels legibly marked, in addition to the stamp, tag, or impression provided for in section 6 of this ordinance, with the words, "skimmed milk," in plain black letters upon a light background, and each letter being at least 1 inch high and one-half inch wide, the said words being placed in a conspicuous place on the top of such vessel.

**SEC. 9.** No adulterated milk, and no milk which has been drawn from cows which have not been inspected by duly licensed veterinary surgeon, and no cream which is adulterated or that shall contain less than 18 per cent of fat, shall be brought into the city of Quincy, or held, kept, sold, or offered for sale in said city, nor shall anyone keep, have, or sell or offer for sale in said city any such cream. The term "cream" means the fatty portions of pure milk which rise to the surface when milk is left at rest, or which may be separated by other means. The term "cream which is adulterated," as used in this section, means any cream to which any foreign substance whatever has been added.

**SEC. 10.** Members of the board of health or its agents, their assistants and deputies, shall have authority to stop and inspect or cause to be inspected any carriage, buggy, automobile, railway car, wagon, cart, or other vehicle used in delivering milk, and any store, depot, shop, creamery, or other place where milk is offered for sale or sold, to take specimens thereof and subject them to satisfactory bacteriological and chemical analyses and other tests, and the results of such tests or analyses shall be recorded and preserved as evidence by the board of health, and a certificate sworn to by the analyst shall be admissible in evidence in prosecutions under this ordinance.

**SEC. 11.** Milk or cream must not be kept for sale or stored in any stable or milk house connected with a stable or in any room used for sleeping or domestic purposes or opening into the same, or in unclean or rusty cans.

**SEC. 12.** Milk or cream shall not be transferred from cans to bottles on streets or at railway depots.

**SEC. 13.** No milk or cream in bottles shall be delivered to a house that is quarantined for a communicable disease; but in such case, until the quarantine is withdrawn, the person delivering milk or cream to such house shall open the bottle containing the milk or cream for such house and pour such milk or cream into a container, which shall be supplied by the occupants of such house, and without touching the bottle to the container.

**SEC. 14.** No bottle, can, or utensil which has once been used for milk or cream for purpose of delivery shall again be used for milk or cream unless said bottle, can, or utensil shall be thoroughly sterilized and washed in water that has been brought to the boiling temperature.

**SEC. 15.** Every licensee shall make immediate report to the board of health of all cases of disease on farms where dairy herds or dairies are located from

which he obtains his milk or cream, or among the occupants or employees of such farm or dairy; and the commissioner of health is authorized to prevent the bringing of milk or cream from such farm or dairy into said city until the patient has recovered.

SEC. 16. The vessels in which milk or cream is kept for sale shall be protected by means of a suitable covered receptacle and so delivered to the purchaser as to prevent dust from the street or other impurities falling into it.

SEC. 17. The ice box in which milk or cream is kept for sale or delivery to others must be cleaned by scrubbing out with a hot soda solution at least twice in each week.

SEC. 18. The barns used for the stabling or housing of milk cows must be of a size sufficient to provide not less than 500 cubic feet of air space for each cow, and must be supplied with fresh air direct from the outside of the building by vents having an area of at least 90 square inches for each 10 cows. The floor shall be constructed of impervious material with proper drainage and must be kept clean by careful sweeping and washing daily. Walls and ceilings shall be constructed of tongued and grooved material and must be kept clean of manure and must be whitewashed and kept in a sanitary condition at all times. No water-closet, privy, cesspool, urinal, inhabitant room, or workshop shall be located within or connected with any place used for the stabling of cows kept for dairy purposes or for storage of milk, nor shall any fowl, horses, hogs, sheep, goats, or any other animals be kept in any room used for such purpose.

SEC. 19. When any licensee hereunder shall sell or deliver to any customer any tickets or tags representing any milk or cream to which the customer is entitled, the same shall be in the form of coupon tickets, or metal checks or tags.

SEC. 20. Any person, firm, or corporation who shall sell or offer for sale or deliver any milk or cream within the city of Quincy without procuring a license therefor, or who shall violate any of the terms or provisions of this ordinance, or who shall fail, refuse, or neglect to obey or conform to any of the directions herein contained, or in whose possession, care, custody, or control any milk or cream shall be found which shall not comply with the terms of this ordinance, shall, upon conviction thereof, be punished by a fine of not less than \$5 nor more than \$200 for each offense.

SEC. 21. That all ordinances and parts of ordinances in conflict with the provisions of this ordinance, so far as they are so in conflict, are hereby repealed.

SEC. 22. This ordinance shall go into effect on January 1, 1917, after its passage, approval, and due publication.